III. POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACTS

A. AESTHETICS

SETTING

The current view of the project site consists primarily of retail commercial establishments, a large parking area, trees and landscaping, which can be seen in the preceding photographs, Figures 8 and 9.

Scenic Route

The project site is not located adjacent to a designated scenic route.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on aesthetics if it would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.
- Increase the amount of shade in public and private open space on adjacent sites.

IMPACT AND MITIGATION

The current view of the site consists of retail commercial establishments, a large parking area, trees and landscaping as shown on the preceding photographs, Figures 8 and 9. The project would remove the restaurant building and the existing frontage parking area along El Camino Real, and construct a high quality mixed use development with street-level office and commercial with housing above while keeping the existing Kohl's store. The project would provide prominent entries from El Camino Real and Halford Avenue, and would place the majority of parking out of public view.

Judgments regarding aesthetic qualities are highly subjective and vary from one person to the next. The Planned Development zoning procedure that the project must go through requires the submittal of detailed architectural and landscape plans for review and approval. The visual quality of the project would be one of the criteria in that review.

Trees

There are 157 trees on the site, as described in section III. D. Biological Resources. Approximately one-third of the trees would be removed as part of the project. The trees that are removed would be replaced with new trees at a 2:1 ratio.

Light and Glare

The project could potentially produce offsite light and glare. The project would be designed to utilize downward-directed lights with low elevation standards in order to prevent offsite light and glare.

Temporary Construction Visual Impacts

Construction of a typical project causes short-term visual impacts. The grading operations create a visual impact, and construction debris, rubbish and trash can accumulate on construction sites and are unsightly if visible from public streets. The completion of the project improvements and landscaping would eliminate the short-term visual impacts of the grading and construction operations.

Impact Summary

The removal of trees, the production of offsite light and glare, and the temporary visual impact of project construction would result in a significant aesthetics impact.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Project Measures

Trees

- Approximately one hundred (100) existing trees along the southwesterly, southerly and easterly site boundaries shall be retained with the project.

- Any tree that is removed shall be replaced by new trees at a 2:1 ratio.

Light and Glare

- Downward-directed lights with low elevation standards in the parking areas shall be provided in order to prevent offsite light and glare.

Temporary Construction Visual Impacts

- Public streets that are impacted by project construction activities shall be swept and/or washed down daily.

- Debris, rubbish and trash shall be cleared from any areas onsite that are visible from a public street.

CONCLUSION

The provision of landscaping and replacement trees, the utilization of downward-directed lights with low elevation standards throughout the project, the sweeping and/or washing down of public streets and the clearing of debris, rubbish and trash from areas visible from public streets would reduce the visual impacts of project development to a **less-than-significant impact with mitigation**.

B. AGRICULTURE RESOURCES

SETTING

Important Farmlands

The *Santa Clara County Important Farmland Map*, prepared by the California Department of Conservation and the USDA Soil Conservation Service, classifies land in seven categories in order of significance: 1) prime farmland, 2) farmland of Statewide importance, 3) unique farmland, 4) farmland of local importance, 5) grazing land, 6) urban and built-up land and 7) other land. The project site is classified as "urban and built-up land," which is defined as land occupied by structures with a building density of at least one unit to one and one-half acres.

Williamson Act

The California Land Conservation Act ("Williamson Act") was enacted to help preserve agricultural and open space lands via a contract between the property owner and the local jurisdiction. Under the contract, the owner of the land agrees not to develop the land in exchange for reduced property taxes. The project site is not under a Williamson Act contract.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on agriculture resources if it would:

- Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

IMPACT AND MITIGATION

Important Farmlands

The project site is classified as urban and built-up land on the *Important Farmland Map* for Santa Clara County. Since the site is not classified as farmland and is currently developed with commercial uses, the project would not have a significant impact on agricultural land.

Impact Summary

The project would not have a significant impact on agriculture resources.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The project's impact on agriculture resources would be a **less-than-significant impact**.

C. AIR QUALITY

Donald Ballanti conducted an air quality impact analysis that is included in the Technical Appendix.

SETTING

Bay Area Air Quality Management District

The project site is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The District includes seven Bay Area counties and portions of two others. Air quality emission and control standards are established by the BAAQMD and the California Air Resources Board, and by the Environmental Protection Agency (EPA) at the Federal level. These agencies are responsible for developing and enforcing regulations involving industrial and vehicular pollutant emissions, including transportation management and control mitigation measures.

Regional Climate

The air quality of a given area is not only dependent upon the amount of air pollutants emitted locally or within the air basin, but also is directly related to the weather patterns of the region. The wind speed and direction, the temperature profile of the atmosphere, and the amount of humidity and sunlight react with the emitted pollutants each day, and determine the resulting concentrations of air pollutants defining the "air quality."

The Bay Area climate is Mediterranean, with mild, rainy winters November through March, and warm, sunny and nearly dry summers June through September. Summer temperature inversions trap ground level pollutants. Winter conditions are less conducive to smog, but thin evening inversions sometimes concentrate carbon monoxide emissions at ground level.

Air Quality Standards

The U.S. EPA and the California Air Resources Board have both established ambient air quality standards for common pollutants to avoid adverse health effects from each pollutant. The pollutants, which include ozone, carbon monoxide (CO), nitrogen dioxide and particulate matter (PM_{10} and $PM_{2.5}$), and their standards are included in the Local Air Quality table that follows.

Regional Air Quality

The Federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as "nonattainment areas". Because of the differences between the federal and state standards, the designation of nonattainment areas is different under the Federal and State legislation.

The Bay Area is currently a nonattainment area for the 1-hour ozone standard. However, in April 2004, U.S. EPA made a final finding that the Bay Area has attained the federal 1-hour ozone standard. The finding of attainment does not mean the Bay Area has been reclassified as

an attainment area for the 1-hour standard; the region must submit a re-designation request to the EPA in order to be reclassified as an attainment area. The U.S. EPA has classified the San Francisco Bay Area as a nonattainment area for the federal 8-hour ozone standard. The Bay Area was designated as unclassifiable/attainment for the federal $PM_{2.5}$ standard.

Under the California Clean Air Act, Santa Clara County is a nonattainment area for ozone and particulate matter (PM_{10} and $PM_{2.5}$). The county either meets attainment or is unclassified for the other pollutants. The California Clean Air Act requires local air pollution control districts to prepare air quality attainment plans; these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or, if not, provide for adoption of "all feasible measures on an expeditious schedule".

Local Air Quality

Air quality in the project area is subject to the problems experienced by most of the Bay Area. Emissions from millions of vehicle-miles of travel each day often are not mixed and diluted, but are trapped near ground level by an atmospheric temperature inversion. Prevailing air currents generally sweep from the mouth of the Bay toward the south, picking up and concentrating pollutants along the way. A combination of pollutants emitted locally, the transport of pollutants from other areas, and the natural mountain barriers (the Diablo Range to the east and the Santa Cruz Range to the southwest) produce high concentrations. Recent air quality data from the nearest BAAQMD monitoring stations (San Jose and Sunnyvale), and Federal and State standards, are shown in the following table.

Table 2. Local Air Quality

Pollutant	Standard	Days Exceeding Standard - 2004	
		San Jose	Sunnyvale
OZONE			
State 1-hour	0.09 ppm	0	1
Federal 1-hour	0.12 ppm	0	0
Federal 8-hour	0.08 ppm	0	0
CARBON MONOXIDE			
State/Federal 8-hour	9.0 ppm	0	na
NITROGEN DIOXIDE			
State 1-hour	0.25 ppm	0	na
PARTICULATE MATTER (PM_{10})			
State 24-hour	50 $\mu g/m^3$	4	na
Federal 24-hour	150 $\mu g/m^3$	0	na
PARTICULATE MATTER ($PM_{2.5}$)			
Federal 24-hour	65 $\mu g/m^3$	0	na

ppm = parts per million $\mu g/m^3$ = micrograms per cubic meter

SOURCE: Bay Area Air Quality Management District monitoring data for San Jose and Sunnyvale.

Project Site

The project site is similar to other locations in the South Bay; air quality meets adopted State and/or Federal standards (the more stringent standard applies) on most days, and during periods when regional atmospheric conditions are stagnated, the air quality is poor throughout the extended South Bay area. There are no existing sources on the project site that currently adversely affect local air quality.

Sensitive Receptors

Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals and medical clinics. The closest sensitive receptors are the single family attached residences located south and southwest of the project site.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

IMPACT AND MITIGATION

Project Impacts

For most types of development projects, motor vehicles traveling to and from the project represent the primary source of air pollutant emissions associated with the project. Project construction could produce short-term fugitive dust generated as a result of soil movement and site preparation.

Local Impacts

The project would change traffic on the local street network, changing carbon monoxide levels along roadways used by project traffic. Concentrations of this gas are highest near intersections of major roads. The CALINE-4 computer simulation model was used to calculate worst-case concentrations at three impacted intersections for existing, existing plus approved projects and existing plus approved plus project conditions. The following table shows the results for the 1- and 8-hour concentrations.

Table 3. Roadside CO Concentrations (ppm)

Intersection	Existing Traffic 1-Hr.	Existing Traffic 8-Hr.	Ex. + Appr. Traffic 1-Hr.	Ex. + Appr. Traffic 8-Hr.	Ex. + Appr. + Project. Traffic 1-Hr.	Ex. + Appr. + Project. Traffic 8-Hr.
El Camino Real and Bowers Avenue	11.8	6.2	12.3	6.6	12.3	6.6
Lawrence Expressway and Arques Avenue	13.7	7.5	14.2	7.9	14.3	8.0
Lawrence Expressway and Kifer Road	14.1	7.8	15,0	8.4	15.1	8.5
Lawrence Expressway and Monroe Street	14.2	7.9	14.9	8.4	15.0	8.4
Lawrence Expressway and Benton Street	13.0	7.1	14.3	8.0	14.4	8.0
Lawrence Expressway and Homestead Road	12.5	7.0	14.2	8.2	14.3	8.3
Lawrence Expressway and I-280	11.9	6.6	11.4	6.9	11.4	6.9
Most Stringent Standard	20.0	9.0	20.0	9.0	20.0	9.0

Ex. = Existing; Appr. = Approved

The predicted existing concentrations meet the 1- and 8-hour standards, and the project traffic would only increase concentrations by up to 0.1 ppm.

Regional Impacts

Vehicle trips generated by the project would result in air pollutant emissions affecting the entire San Francisco Bay Air Basin. Regional emissions associated with project vehicle use have been calculated using the URBEMIS-7G emission model. The incremental daily emissions for reactive organic gases and oxides of nitrogen (two precursors of ozone) and for PM_{10} associated with the project are shown in the following table.

Table 4. Regional Emissions (lbs/day)

Pollutant	BAAQMD Significance Threshold	Project Emissions
Reactive Organic Gases	80	71.4
Nitrogen Oxides	80	71.7
PM_{10}	80	68.8

The project emissions would not exceed the BAAQMD significance thresholds.

Odors
The project would not generate objectionable odors or place sensitive receptors adjacent to a use that generates odors (i.e., landfill, composting, etc.).

Sensitive Receptors
The closest sensitive receptors (the single family attached residences located south and southwest of the project site) could be subjected to fugitive dust as a result of construction, as discussed below.

Temporary Construction Air Quality
Project construction would produce short-term fugitive dust generated as a result of soil movement and site preparation. Construction would cause dust emissions that could have a significant temporary impact on local air quality. Fugitive dust emissions would be associated with site preparation activities, such as excavation and grading, and building construction. Dust emissions would vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. Particulates generated by construction are recognized, but small, contributing sources to regional air quality. While it is a potential impact, construction dust emissions can be mitigated by dust control and suppression practices that are appropriate for the project and level of activity.

Impact Summary
Project generated traffic would not result in a significant air quality impact; however, particulate impacts from temporary construction dust during grading would be a significant impact.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Project Measures

Temporary Construction Air Quality
- A Construction Air Quality Plan shall be developed and implemented for dust control to include dust suppression practices such as: 1) frequent watering; 2) damp sweeping of haul routes, parking and staging areas; 3) installation of sandbags or other erosion control measures to prevent silt runoff to public roadways; 4) vehicle speed controls; 5) watering or the use of soil stabilizers on haul routes, parking and staging areas; 6) prohibition of grading during high winds; 7) hydroseeding areas where grading is completed or inactive; 8) covering of stockpiles and loads in haul vehicles; 9) maintaining at least two feet of freeboard in all haul vehicles; 10) limiting the area being graded at a given time; 11) monitoring of particulate levels; and 12) enforcement measures.

CONCLUSION

The development and implementation of the Construction Air Quality Plan would reduce the temporary construction dust impacts to a **less-than-significant impact with mitigation**.

D. BIOLOGICAL RESOURCES

HortScience, Inc. conducted a tree survey that is included in the Technical Appendix.

SETTING

Vegetation

The project site is currently developed with commercial buildings, parking areas, trees and landscaping. There are no rare or endangered plant species known to inhabit the site.

Trees

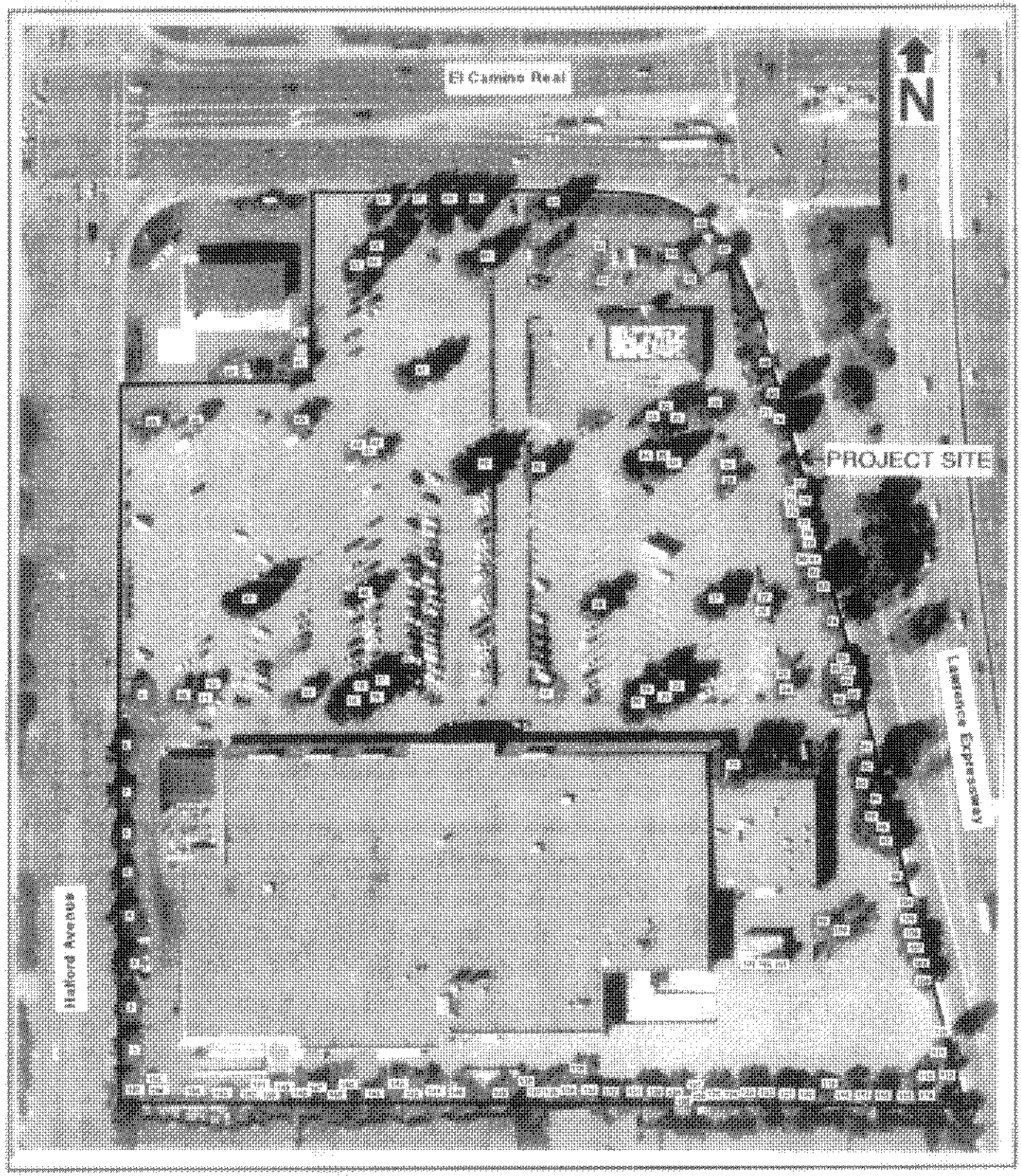
A detailed tree survey of all trees on the site having trunk diameters of 6 inches or greater, or having multiple trunks, was conducted in October, 2003. A total of 157 trees, ranging in diameter from 6 inches to 28 inches, were tagged and evaluated. The approximate locations of the trees are shown on the following Tree Locations exhibit, and a summary table listing the trees by botanical name, common name, the number surveyed and the ranges of their diameter and general condition follows. A detailed table listing each individual tree is included in the Technical Appendix.

General conditions of the trees were determined using a rating system for individual tree health and structure conditions, by assigning values for these categories from zero to five, with values of zero being the worst rating (dead) and values of five being the best. Trees with values of one to two were rated as "poor", values of three were rated as "fair", and values of four to five were rated as "good".

Table 5. Tree Survey Summary

Scientific Name	Common Name	Number	Diameter Range *(inches)* *	General Condition
Xylosma congestum	Shiny Xylosma	46	11 to 6	Fair
Liquidambar styraciflua	Sweetgum	44	19 to 6	Good to Poor
Phoenix canariensis	Canary Island Pine	41	28 to 8	Good to Poor
Magnolia grandiflora	Southern Magnolia	9	11 to 6	Good to Fair
Eucalyptus polyanthemos	Silver Dollar Gum	5	25 to 19	Good to Poor
Washingtonia robusta	Mexican Fan Palm	4	25 to 18	Good
Dodonia viscosa	Hopseed	3	8 to 7	Fair to Poor
Quercus coccinea	Scarlet Oak	3	12 to 9	Good
Albizia julibrissin	Silk Tree	1	16	Fair
Betula nigra	European Birch	1	9	Fair
	Total:	157		

* Diameter at breast height (DBH).



Tree Locations

Figure 19

Wildlife

The project site contains developed habitat. Wildlife typically associated with this habitat type include birds, reptiles, and small mammals. No rare or endangered animal species are known to inhabit the site. The site does not contain any known important wildlife breeding, nesting or feeding areas.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act including, but not limited to, marsh, vernal pool, coastal, etc., through direct removal, filling, hydrological interruption or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.
- Results in a direct loss through removal or indirect damage due to construction activities, or modifications within the driplines, of a "heritage tree", which classification is based on the species of the tree, its relative abundance on the site, and the maximum size to which members of the species typically grow.

IMPACT AND MITIGATION

Trees

There are 157 trees on the project site, ranging in diameter from 6 to 28 inches. Approximately one hundred (100) trees along the southwesterly, southerly and easterly site boundaries are currently planned to be retained with the project. Trees to remain would be safeguarded during construction by a Tree Protection Plan, including measures such as the storage of oil, gasoline, chemicals, etc. away from trees; grading around trees only as approved, and prevention of drying out of exposed soil where cuts are made; no dumping of liquid or solid wastes in the dripline or uphill from any tree; and construction of barricades around the dripline of the trees.

Sixty-two (62) trees are planned to be removed with the project, as indicated on the Existing Trees table and Trees to be Removed exhibit in the Technical Appendix. Although this is not considered a significant impact since no Heritage Tree would be removed, any tree that is removed would be replaced with the addition of new trees to the maximum extent feasible on

the project site; however, due to the density of the project, there are not a lot of opportunities available to plant new trees. The number and locations of the trees will be designated on the project Landscape Plan that is being prepared, but is not available to incorporate into this report.

Trees to remain will be protected by the establishment of a Tree Protection Zone and other requirements as recommended by the City arborist and included in the notes on the project plans.

Wildlife

The project requires the removal of approximately one-third of the trees and the landscaping vegetation on the site. The birds and small mammals would diminish during the initial construction, but as the urban landscaping matures, birds that have adapted to the urban environment would return.

Impact Summary

The project would not have a significant impact on biological resources.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The project's impact on biological resources would be a **less-than-significant impact.**

E. CULTURAL RESOURCES

Holman & Associates conducted an archaeological literature review that is included in the Technical Appendix.

SETTING

Prehistoric Resources

Archival Review

Maps and records at the Northwest Information Center, located at Sonoma State University, were consulted for any record of archaeological remains in and around the project area. The files have no evidence of recorded prehistoric and/or historic sites inside the project borders. Only one historic site, CA-SCl-467H, is recorded within 500 feet of the project site, at the northeast corner of El Camino Real and Lawrence Expressway. There is no indication that the project site has been surveyed for cultural resources in the past, nor have there been any other surveys within 500 feet of it other than a linear survey of the Lawrence Expressway. There are no listings in the Office of Historic Preservation Historic Properties Directory (through 2003) for the address, and none on the Santa Clara County Heritage Resource Inventory of 1979.

The lack of recorded information for the project site and its immediate surroundings is more a product of the age of the construction in this area. The project site and its immediate environment was probably built out before the inception of CEQA guidelines requiring cultural resource surveys, which might have added to the inventory of prehistoric site locations given the proximity of the project site to Calabazas Creek, an environmental setting that could have supported prehistoric settlements.

Historic Resources

There are two existing structures located on the project site, which were constructed approximately 31 years ago. None of the structures on the project site is listed or determined eligible for listing on the National or California Register of Historic Places.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on cultural resources if it would:

- Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines §15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5.
- Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

IMPACT AND MITIGATION

Prehistoric / Historic Resources

There is no evidence of recorded prehistoric and/or historic sites inside the project boundaries, and only one historic site is recorded within 500 feet of the project site. The proximity of Calabazas Creek, however, indicates the project area has the potential for containing buried archaeological resources, in particular under the pavement of the existing parking lots where previous construction-related earthmoving may have been minimal. There is a possibility that unknown subsurface cultural resources may exist on the site.

Impact Summary

Disturbances due to grading and trenching operations may result in significant impacts to prehistoric and/or historic subsurface cultural resources.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Program Measures

- Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California: In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified by the developer and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission, who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the landowner shall reinter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

Project Measures

- Any clearing work shall be monitored by a qualified professional archaeologist to inspect for the presence of prehistoric and/or historic cultural resources.

- Should evidence of prehistoric and/or historic cultural resources be discovered during monitoring in areas where additional impacts will occur, work within the proximity of the find shall be stopped to allow adequate time for evaluation and mitigation; a plan for evaluation of the resource(s) shall be submitted to the City of Santa Clara for approval; the material shall be evaluated; and if significant, a mitigation program including collection and analysis of the materials prior to the resumption of grading, inclusion on the California Register of Historic Resources if warranted, preparation of a report, and curation of the materials at a recognized storage facility shall be developed and implemented under the direction of the Director of Planning and Inspection.

- Any Native American human remains that are discovered and would be subject to disturbance shall be removed and analyzed, a report shall be prepared, and the remains shall be reburied in consultation and agreement with the Native American Most Likely Descendant designated by the Native American Heritage Commission.

CONCLUSION

The implementation of State laws regarding the discovery of human remains and the archaeological mitigation program, if resources are found during construction, would reduce the potential impacts to prehistoric and/or historic cultural resources to a **less-than-significant impact with mitigation**.

F. ENERGY

SETTING

California and the nation in general have been in an extended period of increasingly higher energy costs and depleting non-renewable energy resources for utilities and transportation. Public utilities and public transit that are available to serve the project are located in the project vicinity.

SIGNIFICANCE CRITERIA

The proposed project would have a significant energy impact if it would:

- Encourage activities which result in the use of large amounts of fuel and energy.

IMPACT AND MITIGATION

Project development would result in the consumption of energy in three forms: 1) the fuel energy consumed by construction vehicles; 2) bound energy in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials such as lumber and glass; and 3) ongoing operational use of energy by project employees and residents for transportation and utilities.

The automobile would be the primary means of access to the project site; however, the availability of transit service on El Camino Real and on Lawrence Expressway would provide an alternate, energy conserving means of transportation for future project residents and employees.

The major opportunities to conserve energy are related to the building design. An east-west longitudinal building orientation (maximum southerly window exposure) is the optimum arrangement for capturing the sun's energy during winter months. Where windows with southerly exposure are used, a 32 to 34-inch eave overhang would be required to shield the windows from the summer sun; awnings would also be utilized on many of the south-facing windows.

The buildings would be designed in accordance with all applicable insulation and energy conservation regulations as prescribed by Title 24 of the California Administrative Code, which sets energy efficient design standards, in order to regulate energy consumed for heating and cooling. Project development would also be in conformance with the City of Santa Clara Building Code, which also sets forth energy efficient design standards. A list of energy conservation measures that will be considered in the project is included in Appendix A.

Impact Summary

The increase in demand for energy generated by project development would be a less-than-significant impact.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The project's impact on energy would be a **less-than-significant impact**.

G. GEOLOGY AND SOILS

Terrasearch, Inc. conducted a geotechnical investigation that is included in the Technical Appendix.

SETTING

Topography

The project site has a uniform northerly slope of less than one percent. Elevations on the site range from approximately 99 feet at the northerly boundary to approximately 105 feet at the southerly boundary. There are no significant topographic features on the site.

Geology

The project site is underlain by Quaternary alluvium (Qal), which consists of unconsolidated to weakly consolidated silt, sand and gravel. Quaternary alluvium includes Holocene and late Pleistocene alluvium and minor amounts of beach and dune sand and marine terrace deposits.

Soils

The project site is underlain by the alluvial soils of the Yolo association as classified by the United States Department of Agriculture, Soil Conservation Service. Campbell silty clay is the specific soil type identified at the site. Campbell silty clay is characterized by a dark gray, granular, hard, mildly alkaline surface layer approximately 22 to 28 inches thick; moderately good natural drainage; slow subsoil permeability; very slow surface runoff; no erosion hazard; high inherent fertility (Class II); and a moderate shrink/swell capacity.

The site is mapped within a hazard zone for liquefaction on the State of California Seismic Hazard Zones map.

Faulting

There are no identified earthquake faults mapped on the site. The nearest active fault zones are the Hayward and Calaveras Faults, which are mapped approximately 11.4 and 12.0 miles respectively to the northeast, and the San Andreas Fault, which is mapped approximately 8.4 miles to the southwest. The closest active fault, the Monte Vista - Shannon Fault, is mapped approximately 4.6 miles to the southwest.

Geotechnical Investigation

A geotechnical investigation was conducted to determine the surface and subsurface soil conditions at the site. The investigation consisted of a review of pertinent published geotechnical literature on the site, a surface reconnaissance, drilling and sampling of the subsurface soils at eight locations, laboratory testing of selected soil samples, and engineering analysis of the data and formulation of conclusions and recommendations.

Literature Review

The project site is located within the Coast Ranges geomorphic province, a belt of sedimentary, volcanic and metamorphic rocks that extends from southern California to Oregon. The site is mapped as being underlain by Holocene medium-grained alluvium, which was deposited from braided streams on alluvial fans. The medium-grained alluvium is underlain by thick sequences of older alluvium, and then by the Franciscan Complex and Tertiary sedimentary rocks.

Field Investigation / Subsurface Conditions

The field investigation was performed on September 15, 2003 and included a reconnaissance of the site and the drilling of eight exploratory borings. The borings were drilled to a maximum depth of 50 feet below the existing ground surface. The locations and logs of the borings are included in the report in the Technical Appendix.

The subsurface soil conditions encountered indicate that the near-surface sub-grade soils consist of a brown to dark brown silty clay to an approximate depth of 15 to 25 feet below existing grade. The silty clay overlies interbedded dense to very dense layers of clayey and silty sands with varying amounts of gravel. Relatively loose sandy layers were erratically interspersed and were estimated to be generally approximately 6 inches in thickness. It was estimated that the total thickness of the sand layers in the upper 50 feet of soil sub-grade was approximately 60 inches. Groundwater was encountered in each boring at depths ranging from 21 to 24 feet below the ground surface.

Plasticity tests of the subsurface soils at the foundation level for the on-grade structures indicate a moderate to high propensity for this material to expand when exposed to increases in moisture content.

Laboratory Testing

The laboratory testing program was directed towards providing sufficient information for the determination of the engineering characteristics of the site soils so that the recommendations outlined in the report could be formulated. Moisture content and dry density tests, direct shear and unconfined compression tests, field penetration resistance, and Atterberg Limits tests were performed. The laboratory test results are presented in the report in the Technical Appendix.

Investigative Conclusions

The principal adverse geotechnical factors affecting the site are seismic shaking and the potential for liquefaction-induced settlements. The site is suitable for the construction of the proposed development, from a geotechnical perspective, provided the report recommendations are incorporated into the project plans and specifications.

SIGNIFICANCE CRITERIA

The proposed project would have a significant geology and soils impact if it would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:
  1) Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.).
  2) Strong seismic ground shaking.
  3) Seismic-related ground failure, including liquefaction.
  4) Landslides.
- Result in substantial soil erosion or the loss of topsoil.
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

IMPACT AND MITIGATION

Topography

There are no significant topographical features on the site that would be altered by the project.

Expansive Soils

The surface soils on the site pose a hazard to building foundations because of their moderate to high shrink/swell potential. Mitigation measures for this problem include controlling drainage away from structures and pavements, and the use of special foundations.

Erosion

Development of the project site may subject the soils to accelerated erosion. In order to minimize erosion, erosion control measures such as those described in the ABAG *Manual of Standards for Erosion & Sediment Control Measures* would be incorporated into the project.

Ground Rupture

Ground rupture (surface faulting) tends to occur along lines of previous faulting. As no evidence was found for the existence of active or potentially active faulting on the site, the potential for ground rupture to occur is considered to be negligible.

Seismic Shaking

The maximum seismic event occurring on the site would probably be from effects originating from the Hayward, Calaveras, or San Andreas fault systems. Ground shaking effects can be expected in the project area during a major earthquake originating along any of the active faults within the Bay Area. At present, it is not possible to predict when or where movement will

occur on these faults. It must be assumed, however, that movement along one or more of these faults will result in a moderate or major earthquake during the lifetime of any construction on this site. The effects on development would depend on the distance to the earthquake epicenter, duration, magnitude of shaking, design and quality of construction, and geologic character of materials underlying foundations.

The maximum credible earthquake, which is defined as *"the maximum earthquake that appears capable of occurring under the presently known framework"*, for the San Andreas Fault ranges from magnitude 8.0 to 8.3; and from magnitude 7.0 to 7.5 for either the Hayward or Calaveras Faults. The maximum probable earthquake, which is defined as *"the maximum earthquake that is likely to occur during a 100-year interval"*, for the San Andreas Fault ranges from magnitude 7.5 to 8.5; from magnitude 6.75 to 7.5 for the Hayward Fault; and from magnitude 6.5 to 7.0 for the Calaveras Fault.

Structural damage due to ground shaking is caused by the transmission of earthquake vibrations from the ground into the structure. The most destructive effects of an earthquake usually occur where the ground is unstable and structures are poorly designed and constructed. Preliminary estimates of ground response characteristics at this site indicate that severe ground shaking at this site could be caused by moderate to major activity on the active Bay Area faults. Structures at this site would be designed to accommodate earthquake vibrations, thus minimizing structural damage resulting from seismic ground shaking.

The project would be designed and constructed in accordance with Uniform Building Code requirements, which are intended to reduce seismic risks to an acceptable level.

Secondary Seismic Effects

Since the property is not situated on a hillside, the site is not susceptible to landsliding during a strong seismic event; however, the site is susceptible to liquefaction, differential compaction and/or ground lurching due to the nature of the subsurface materials. Since the site is located near the San Francisco Bay, the secondary hazards of tsunamis or seiches are probable, but unlikely.

Liquefaction / Differential Settlements

Soil liquefaction is a phenomenon in which saturated, cohesionless soil layers located close to the ground surface lose strength during cyclic loading, such as imposed by earthquakes. During the loss of strength, the soil acquires a "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, saturated, uniformly graded, fine-grained soils. The conditions at this site are such that the potential for this phenomenon to occur is considered to be moderate to high. Seismically induced settlements of up to 1 inch should be anticipated under strong seismic loading. Differential settlements of half that amount can be anticipated. Long term and seasonal changes in groundwater elevations are not expected to significantly increase the liquefaction potential of this site.

Impact Summary

Hazards associated with liquefaction/differential settlements and with seismic shaking would result in significant geology and soils impacts.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Program Measures

Seismic Shaking

- All structures shall be designed and constructed to ensure structural stability as required by the earthquake design regulations of the Uniform Building Code.

Project Measures

General

- All earthwork and foundation plans and specifications shall comply with the recommendations of the geotechnical investigation by Terrasearch, Inc. The geotechnical report lists approximately 55 recommendations that are included in the project for demolition, grading, excavation, foundations, retaining walls, slabs-on-grade, concrete flatwork, pavement design and utility trenches, most of which reflect standard engineering practices that are not required to mitigate environmental impacts. The recommendations that specifically address potential geotechnical hazards found on the site are included below.

Expansive Soils

- Structural mat or post-tensioned slab foundation systems shall be utilized in any on-grade structures subjected to expansive soils movement.

- Drainage shall be controlled away from all structures and pavements.

Erosion

- A City-approved Erosion Control Plan shall be developed and implemented with such measures as: 1) the timing of grading activities during the dry months, 2) temporary and permanent planting of exposed soil, 3) temporary check dams, 4) temporary sediment basins and traps and 5) temporary silt fences.

Liquefaction / Differential Settlements

- The structural mats or post-tensioned slabs shall be designed to accommodate differential settlements of up to 0.5 inch due to liquefaction-induced settlements.

CONCLUSION

The implementation of the Uniform Building Code requirements regarding the design and construction of buildings to resist earthquake forces and of commonly used mitigation measures including special foundations and control of drainage, erosion control measures, and the design of foundations to accommodate liquefaction-induced settlements would reduce the geology and soils impacts to a **less-than-significant impact with mitigation**.

H. HAZARDS AND HAZARDOUS MATERIALS

ACS Associates conducted a Phase I environmental assessment that is included in the Technical Appendix. The referenced Kmart building has since been replaced by Kohl's.

SETTING

Phase I Environmental Assessment

A Phase I environmental assessment was conducted to assess the project site for evidence of hazardous waste contamination and the possibility of underground storage tanks. The assessment included a review of available historical tenant reports and historical topographic maps; an investigation of the site for potentially hazardous materials, including building materials, storage materials, etc.; a survey of the adjacent land uses and determination of any current nearby operations that would potentially impact the project site; and a review of governmental agency databases to aid in the identification of any potential onsite or nearby contamination sources.

Historical Review

Historical topographic maps of the area were reviewed. The results indicate that the area around the project site was developed before the 1960s. The currently site buildings were built in 1972. Prior to their development, the project site was occupied by rural residences. The Kmart manager indicated that he knows of no underground tanks at the site.

Site Reconnaissance

A site reconnaissance was conducted on November 24, 2003. The project site consists of two buildings - the Kmart building and the Taco Bell building, and parking areas. The Kmart building is currently occupied by three tenants: Big Kmart, Sanraj Restaurant and Bharat Market. The Kmart building is a one-story concrete building constructed of concrete, bricks and frame, on concrete slabs, while the Taco Bell building is also one story and is constructed of wood frame stucco on concrete slabs.

None of the building tenants have signs of spills or stains indicative of spills of liquid. The vegetation on or near the site appear to be healthy, as they show no signs of discoloration, wilting or other signs indicative of stress. The west portion of the Kmart building used to have a Penske unit, which installed tires. This area, which was vacant at the time of the site visit, had a six-bay garage with what appear to be remnants of in-ground automobile jacks. With the exception of the Penske unit, there are no sump pump, vent, filler pipes or drains located at the site that appear to be associated with underground tanks, vaults, drains or clarifiers. There are three steel plates covering what appear to be underground clarifier structures on the west portion of the Kmart building driveway; these do not appear to be significant environmental concerns. A small amount of hydraulic fluid could still be present at the underground jacks, if there is any. There appears to be no other potentially hazardous waste or material present at the project site that could conceivably endanger the environment.

Existing uses surrounding the project site are all commercial and residential. There is a gasoline station adjacent to the northwesterly portion of the project site and another gas station across El Camino Real. The ground surface at the adjacent uses, including the soil, does not show any sign of surface stains or discoloration that might indicate that chemicals or hazardous material has been discharged into the ground.

Regulatory Agency Review

City hazardous material and underground storage tank records did not have any records of underground storage tanks at the project site. City records show no current outstanding environmental violations for the site. County Department of Environmental Health indicated that the site has no records of underground tanks; a previous tank removal appeared to have been done in compliance, according to September, 2000 documents of the City Fire Department.

Several governmental regulatory agency databases were searched to aid the identification of companies or facilities, located within a one-mile radius of the site, that might pose a potential threat to the surface environment of the site. The project site was not listed on any of the databases reviewed. Four facilities within a one-half mile radius were identified as having leaking underground storage tanks; however, they are not in the immediate vicinity of the site and are unlikely to cause any environmental concern.

Documents and records were reviewed for the two neighboring gasoline stations. City and Santa Clara Valley Water District records indicate that both stations are in compliance and there is no significant environmental threat to the local soil and groundwater. A leaking underground tank at the Chevron Station that was discovered in 1989 was repaired, and the case was closed in 2004.

SIGNIFICANCE CRITERIA

The proposed project would have a significant hazards and hazardous materials impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

IMPACT AND MITIGATION

There was no evidence of hazardous materials or a waste-containing facility at the project site during the site reconnaissance and governmental document search. There appears to be no environmental problems or concerns caused by the practices of the tenants or owners at the site and its immediate neighbors. Additional work is not recommended.

Demolition

The project proposes the demolition of a structure(s) that may contain hazards such as asbestos-containing materials (ACM) or lead based paint (LBP). The structures to be removed should be surveyed for the presence of ACM and/or LBP. If any suspect ACM are present, they should be sampled prior to demolition and removed in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Cal-OSHA requirements, if warranted. If any suspect LBP is present, it should be sampled prior to demolition and removed in accordance with EPA and OSHA requirements, if warranted.

Impact Summary

The existing structures on the site could contain asbestos-containing materials and/or lead based paint, which are potential health hazards.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Project Measures

Asbestos-Containing Materials

- The structures to be removed shall be surveyed for the presence of asbestos-containing materials at the demolition permit stage; and if any suspect ACM are present, they shall be sampled prior to demolition in accordance with NESHAP guidelines, and all potentially friable ACM shall be removed prior to building demolition and disposed of by offsite burial at a permitted facility in accordance with NESHAP and Cal-OSHA requirements.

Lead Based Paint

- The structures to be removed shall be surveyed for the presence of lead based paint at the demolition permit stage; and if any suspect LBP is present, it shall be sampled prior to demolition, and all potential LBP shall be removed prior to building demolition and disposed of by offsite burial at a permitted facility in accordance with EPA and OSHA requirements.

CONCLUSION

The surveys for the presence of asbestos-containing materials and/or lead based paint and the sampling, removal and disposal at a permitted facility would reduce hazards and hazardous materials impacts to a **less-than-significant level with mitigation**.

I. HYDROLOGY AND WATER QUALITY

smp engineers llc. prepared a Stormwater Provision C.3 Compliance analysis that is included in the Technical Appendix.

SETTING

Waterways

There are no waterways on the project site. The nearest waterway is Calabazas Creek, which is approximately 0.4 mile to the southeast.

Flooding

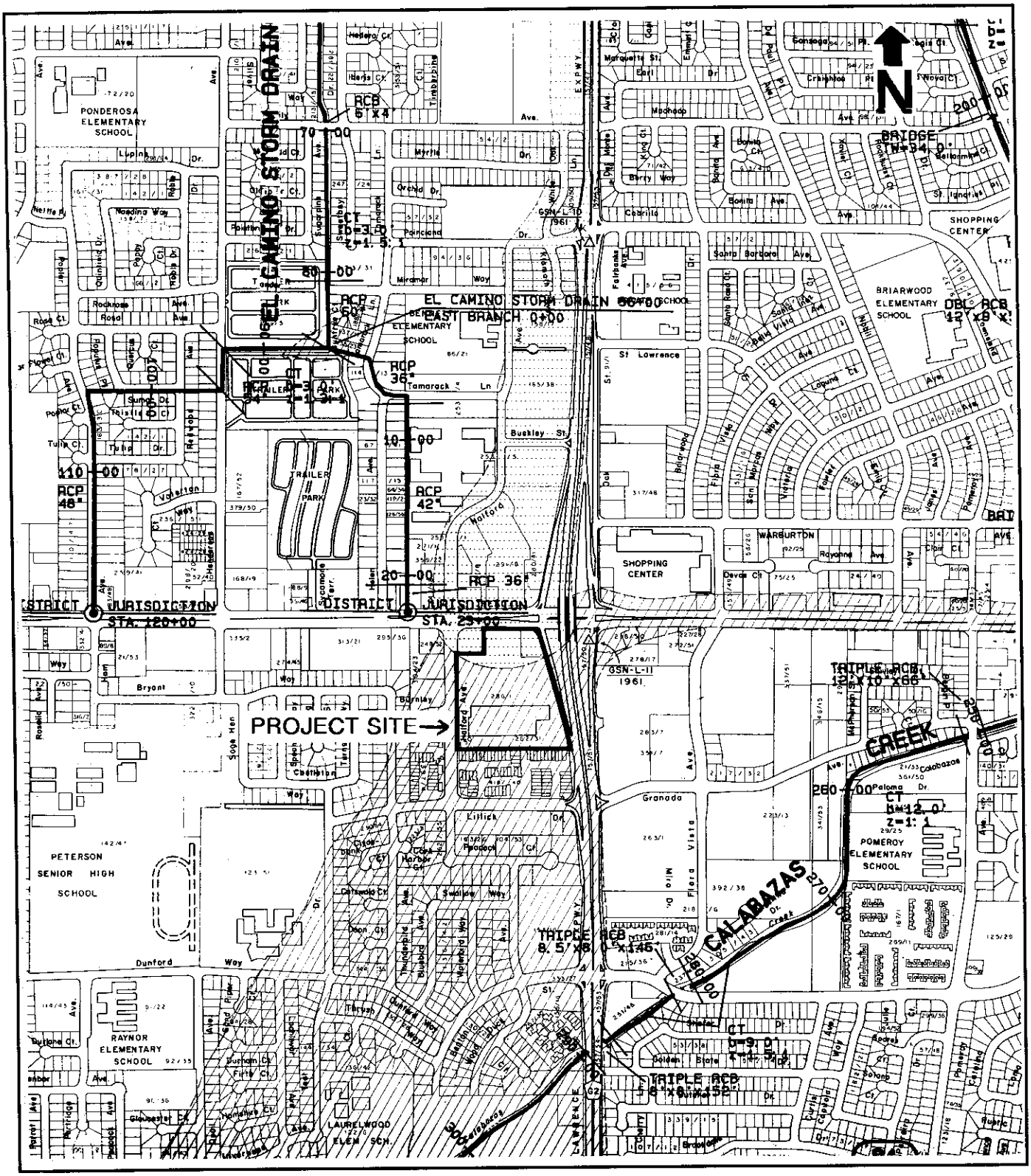
According to the Federal Emergency Management Agency's (FEMA) *Flood Insurance Rate Maps*, the northerly portion of the project site is within the limits of potential inundation with the occurrence of a one percent flood, while the remainder of the site is within Zone B, which includes "*areas between the limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood*". According to the Santa Clara Valley Water District's (SCVWD) *Maps of Flood Control Facilities and Limits of 1% Flooding*, the northerly portion of the site is within a FEMA flood hazard boundary - one foot or more, while the remainder of the site is within 1% flood limits - generally less than one foot. The limits of the potential inundation are shown on the following SCVWD-based Potential Flooding map.

Water Quality

Stormwater runoff flows via City storm drainage lines to Calabazas Creek and then north to the San Francisco Bay.

Nonpoint Sources

The Clean Water Act states that the discharge of pollutants in stormwater to Waters of the United States from any point source is unlawful, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The U.S. Environmental Protection Agency requires under the Clean Water Act that any stormwater discharge from construction sites larger than five acres be in compliance with the NPDES. The State Regional Water Quality Control Board (RWQCB), which is responsible for implementing and enforcing the program, issued a statewide General Permit for construction activities. Provisions of the current Permit require that the following issues be addressed with respect to water quality: 1) erosion and sedimentation during clearing, grading or excavation of a site; and 2) the discharge of stormwater once construction is completed. Coverage under this permit would be obtained by submitting a Notice of Intent to the RWQCB that identifies the responsible party, location and scope of operation; and by developing and implementing a Storm Water Pollution Prevention Plan (SWPPP) as well as monitoring the effectiveness of the plan.



Source: Santa Clara Valley Water District Maps of Flood Control Facilities and Limits of 1% Flooding, June, 1993

FEMA Flood Hazard Boundary - 1 Foot or More

1% Flood Limits - Generally Less Than 1 Foot

Potential Flooding

Figure 20

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) was developed to control nonpoint sources of pollution from entering water sources and deteriorating water quality. The City of Santa Clara is a participant in the SCVURPPP. A number of control measures, including those related to development activities, industrial and construction inspections, public agency activities and public outreach efforts, are also currently being developed and implemented. The development, implementation and enforcement of control measures to reduce pollutant discharges from areas of new development are the responsibility of the Nonpoint Source Control Program in cooperation with the RWQCB.

The RWQCB issued a revised NPDES Municipal Separate Storm Sewer System (MS4) Permit to the SCVURPPP. The Permit establishes two types of requirements for new and redevelopment projects: pollutant control measures and peak flow control measures. Specific pollutant control measures are currently required for projects that add or replace 10,000 square feet or more of impervious surface. Stormwater pollution can be reduced by a combination of site design, source control, and treatment Best Management Practices (BMPs). The Permit also requires that the City begin implementing specific numeric sizing hydraulic design calculation methods for stormwater BMPs in lieu of the current qualitative approach. These hydraulic design methods are either volume or flow-based, depending on the type of treatment BMP proposed.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on hydrology and water quality if it would:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Otherwise substantially degrade water quality.
- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- Be subject to inundation by seiche, tsunami or mudflow.

IMPACT AND MITIGATION

Flooding

The project site is within the limits of potential inundation with the occurrence of a one percent flood. The northerly portion is in a flood hazard area of one foot or more, while the southerly portion is in a zone with flooding generally less than a foot. Buildings and property can be protected by building finished floor areas above the projected FEMA flood level.

Water Quality

The primary impact on water quality would be from rooftop and driveway drainage. Particulates, oils, greases, toxic heavy metals, pesticides and organic materials are typically found in urban storm runoff. The project's contribution would have a potentially significant impact on water quality. Stormwater runoff would be slightly reduced under project conditions as the amount of impervious surfaces (buildings and pavement) would be less. In addition, temporary construction-related activities such as clearing, grading, or excavation could result in potentially significant impacts to water quality.

Stormwater runoff and pollution can be reduced by the use of bioswales and pervious paving. Bioswales are open, shallow channels with vegetation covering the side slopes and bottom that collect and slowly convey runoff flow to downstream points. Pervious paving reduces runoff by allowing a portion of water to filter into the natural ground. They both reduce the quantity and improve the quality of runoff.

The project includes bioswales along the easterly, southerly and westerly perimeters and all of the surface pavement in the project will be pervious pavement. Runoff from impervious areas (roofs and concrete sidewalk) will be drained onto pervious pavement and routed to the bioswales and then a perforated pipe system below the swales that will connect to the storm drainage system. The calculations to meet C.3 requirements and the plan showing the bioswales are included in the Technical Appendix.

Impact Summary

Onsite flooding would result in a significant hydrological impact on project development; and stormwater runoff associated with project development and construction-related activities such as clearing, grading or excavation would result in significant impacts to water quality.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Program Measures

Water Quality

- A Notice of Intent and a Storm Water Pollution Prevention Plan that addresses both construction and post-construction periods and specifies erosion and sediment control measures, waste disposal controls, maintenance responsibilities and non-stormwater

management controls, shall be submitted to the RWQCB to comply with the stormwater discharge requirements of the NPDES General Permit.

Project Measures

Flooding

- Buildings shall be designed so that the finished floor is elevated above the projected FEMA flood level.

- An onsite drainage system, including streets, curbs, gutters and an underground system, shall be constructed.

Water Quality

- A Storm Water Pollution Prevention Plan (SWPPP) in compliance with the local NPDES permit shall be developed and implemented including: 1) site description; 2) erosion and sediment controls; 3) waste disposal; 4) implementation of approved local plans; 5) proposed post-construction controls, including description of local post-construction erosion and sediment control requirements; 6) Best Management Practices (BMPs) such as the use of infiltration of runoff onsite, first flush diversion, flow attenuation by use of open vegetated swales and natural depressions, stormwater retention or detention structures, oil/ water separators, porous pavement, or a combination of these practices for both construction and post-construction period water quality impacts; and 7) non-storm water management.

- The project shall incorporate the following site design, source control, and treatment measures to minimize the discharge of stormwater pollutants:
  - Bioswales shall be incorporated into the stormwater drainage design.
  - Pervious paving will be used throughout the project.
  - Roof drains shall discharge and drain to the pervious pavement.

Temporary Construction Water Quality

- A City-approved Erosion Control Plan shall be developed and implemented with such measures as: 1) the timing of grading activities during the dry months, 2) temporary and permanent planting of exposed soil, 3) temporary check dams, 4) temporary sediment basins and traps and 5) temporary silt fences.

CONCLUSION

The design of buildings so that the finished floor is elevated above the projected FEMA flood level, the construction of an onsite drainage system and the implementation of the stormwater discharge requirements in compliance with the NPDES General Permit; the incorporation of site design, source control and treatment measures to minimize the discharge of stormwater pollutants; and construction erosion control measures and the sweeping and/or washing down of streets would reduce hydrology and water quality impacts to a **less-than-significant impact with mitigation**

J. LAND USE AND PLANNING

SETTING

General Plan

The land use designation for the project site on The City of Santa Clara General Plan 2000 - 2010 is Transit-Oriented Mixed Use, which is defined as follows:

> **Transit-Oriented Mixed Use**
> *"Twenty-six to 45 du/acre and up to 99 persons/acre. This designation is intended to encourage higher density residential development both in close proximity to multiple transit lines and in conjunction with commercial development or redevelopment.*
>
> *For sites with approximately a one-acre or larger lot, this designation is intended to encourage high quality mixed use development which includes residential uses, accessible separately from adjacent commercial or office uses. For sites where adjacent properties are designated single family on the Plan, total building height should not exceed three stories including parking, within fifty feet of an adjacent single family property.*
>
> *Application of this designation would be based on transit services and surrounding land uses."*

The project conforms with this classification.

Zoning

The project site is currently zoned CC - Community Commercial District. The project is an application to rezone the site to PD - Planned Development District in accordance with the proposed development plans.

Existing Use

The project site is currently commercial. Previous uses of the site include: rural residential and/ or agriculture.

Surrounding Uses

Land uses surrounding the project site include: transportation (El Camino Real) and retail commercial to the north and northwest; transportation (Lawrence Expressway) to the east; and single family attached residential to the south and southwest.

Jobs/Housing

The term "jobs/housing balance" refers to the ratio of jobs in a local area to housing units. The City of Santa Clara has approximately 110,030 jobs and only approximately 41,915 dwellings, for a jobs/housing ratio of approximately 2.63. Communities with such a jobs/housing ratio imply net in-commuting. With a jobs/housing ratio of approximately 2.63, many of the people filling jobs within Santa Clara must commute to work from other areas.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on land use and planning if it would:

- Physically divide an established community.
- Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

IMPACT AND MITIGATION

Compatibility

The project would change the land use on the site from commercial use to mixed residential, office and commercial use in accordance with the General Plan land use designation. The proposed project would provide site entry points and onsite circulation to minimize offsite traffic congestion, and would incorporate lowered building massing along the existing residential development to the south and existing and new tree screenings along the southwesterly, southerly and easterly site boundaries to promote compatibility with the existing residential areas to the south and southwest. With the incorporation of these measures, the proposed mixed residential, office and commercial use would be compatible with the surrounding area. Development of the project site would introduce new buildings, parking areas and landscaping to the area. These uses would change the view of the site and would generate increases in traffic, noise and air pollution in the area that would not be significant.

Jobs/Housing

The City of Santa Clara currently has substantially more jobs than housing. While the proposed project would provide an increase of approximately 125 new jobs, it would also provide up to 490 new housing units (with 10 percent affordable housing), which would help the City's existing jobs/housing imbalance. Based on 1.2 employed residents per household, the project would add approximately 600 new employed residents to the City.

Impact Summary

Project development could have compatibility impacts on the existing residential land uses to the south and southwest.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Compatibility

- Site entry points and onsite circulation shall be designed to minimize offsite traffic congestion.

- The project buildings shall have a 55-foot setback from the southerly property line.

- Existing and new tree plantings along the southwesterly, southerly and easterly boundaries shall provide landscape screening for the existing residential developments to the southwest and south.

CONCLUSION

The design of site entry points and onsite circulation to minimize offsite traffic congestion, the provision of a 55-foot setback from the southerly property line, and the incorporation of tree screenings along the site's southwesterly, southerly and/or easterly boundaries would reduce the project's impact on land use and planning to a **less-than-significant impact with mitigation**.

K. NOISE

Charles M. Salter Associates, Inc. conducted an environmental noise assessment that is included in the Technical Appendix.

SETTING

Existing Noise Sources

Noise intrusion over the site originates primarily from vehicular traffic sources on El Camino Real to the north and Lawrence Expressway to the east. Adjacent to the site, Lawrence Expressway ramps from ground level (adjacent to the southerly portion of the site) to an elevated section passing over El Camino Real to the north.

ALUC Noise Zone

The project site is not located within an Airport Land Use Commission (ALUC) Noise Zone (65 dB CNEL).

Measurements

Noise levels are described in terms of the Day-Night Sound Level (DNL), which is the 24-hour noise descriptor used by the City of Santa Clara to define acceptable noise levels. These values are calculated from the energy equivalent level (L_{eq}). To obtain the L_{eq} values, sound level measurements were made between October 21 and 23, 2003. Three long-term monitors continuously measured noise levels, and several short-term "spot" measurements were taken at various locations and compared with corresponding time periods from long-term monitors to determine how noise levels vary in different areas and elevations. Calculations result in DNL values of 64 dB along Halford Avenue, 71 dB along El Camino Real, and 73 dB along Lawrence Expressway.

SIGNIFICANCE CRITERIA

The proposed project would have a significant noise impact if it would result in:

- Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels.
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

IMPACT AND MITIGATION

Standards

Residential

Noise criteria that apply to the project are the Noise Insulation Standards of the California Code of Regulations, Title 24, and the Noise Section of the Environmental Quality Element of the City of Santa Clara General Plan. Title 24 is applicable to all new multi-family dwellings.

The Title 24 standards, which utilize the DNL descriptor, establish an exterior reference level of 60 dB and specify that residential buildings to be located within an annual DNL zone of 60 dB or greater require an acoustical analysis. The analysis report must show that the planned buildings provide adequate attenuation to limit intruding noise from exterior sources to an annual DNL of 45 dB in any habitable space.

The City of Santa Clara General Plan specifies a DNL of up to 55 dB as a compatible environment for residential land uses. When the exterior level exceeds 55 dB DNL, design and sound insulation are required to maintain the noise levels in living spaces at or below 45 dB DNL. Exterior and interior noise levels and mitigation measures that comply with these City of Santa Clara standards would also achieve compliance with the Title 24 standards.

Office / Commercial

Noise criteria that apply to the project are included in the Noise Section of the Environmental Quality Element of the City of Santa Clara General Plan, which specified a DNL of up to 65 dB as a compatible environment for office / commercial land uses. When the exterior level exceeds 65 dB DNL, design and sound insulation are required to maintain the noise levels in interior spaces at or below 45 dB DNL.

Project-Generated Noise

Section 18.26 of the Santa Clara City Code contains performance standards for the generation of noise at adjacent properties. The exterior noise level from any fixed noise source is limited to 55 dB and 50 dB at residential property lines, for daytime and nighttime activities, respectively. Where adjacent to commercial receivers, noise levels may be 10 dB higher.

Exterior Noise Exposures

Onsite measurements and calculations determined that the maximum DNL along Halford Avenue under existing traffic conditions is 64 dB, the maximum DNL along El Camino Real is 71 dB, and the maximum DNL along Lawrence Expressway is 73 dB.

To fully assess the impact of traffic noise on the project, future traffic levels must also be considered. Traffic noise levels are expected to increase by no more than 1 dB in the future; thus, future noise exposures along Halford Avenue are calculated to increase to 65 dB DNL, future noise exposures along El Camino Real are calculated to remain at 71 dB DNL, and future

noise exposures along Lawrence Expressway are calculated to increase up to 74 dB DNL, as shown on the following Future Noise Levels exhibit. Interior building courtyards are estimated to range from approximately 55 to 60 dB DNL.

The City has not specified noise criteria for outdoor use spaces; however, the Noise and Land Use Compatibility Guidelines in the General Plan seem to suggest that outdoor residential uses be limited to areas where the DNL does not exceed 70 dB. The proposed building in the northeast corner of the site includes a fifth-floor outdoor use space adjacent to Lawrence Expressway. While estimated future noise levels exceed 70 dB DNL, incorporating a solid noise barrier that blocks the line-of-sight between people in the open space and vehicles on Lawrence Expressway would reduce noise levels to below 70 dB DNL. To the extent that exterior balconies are planned along El Camino Real or Lawrence Expressway, insetting them into the building shell and/or incorporating rail-height shielding from roadway traffic noise should be considered.

Interior Noise Exposures

To meet the interior 45 dB DNL noise criterion, residential, office and retail spaces nearest the adjacent roadways will require noise insulation features, such as sound rated windows and doors, incorporated into the project design. Recommendations for sound-rated construction (i.e., window and door Sound Transmission Class - STC ratings) would depend on the size of rooms, windows and exterior façades. Details of mitigation measures would be determined during the design phase.

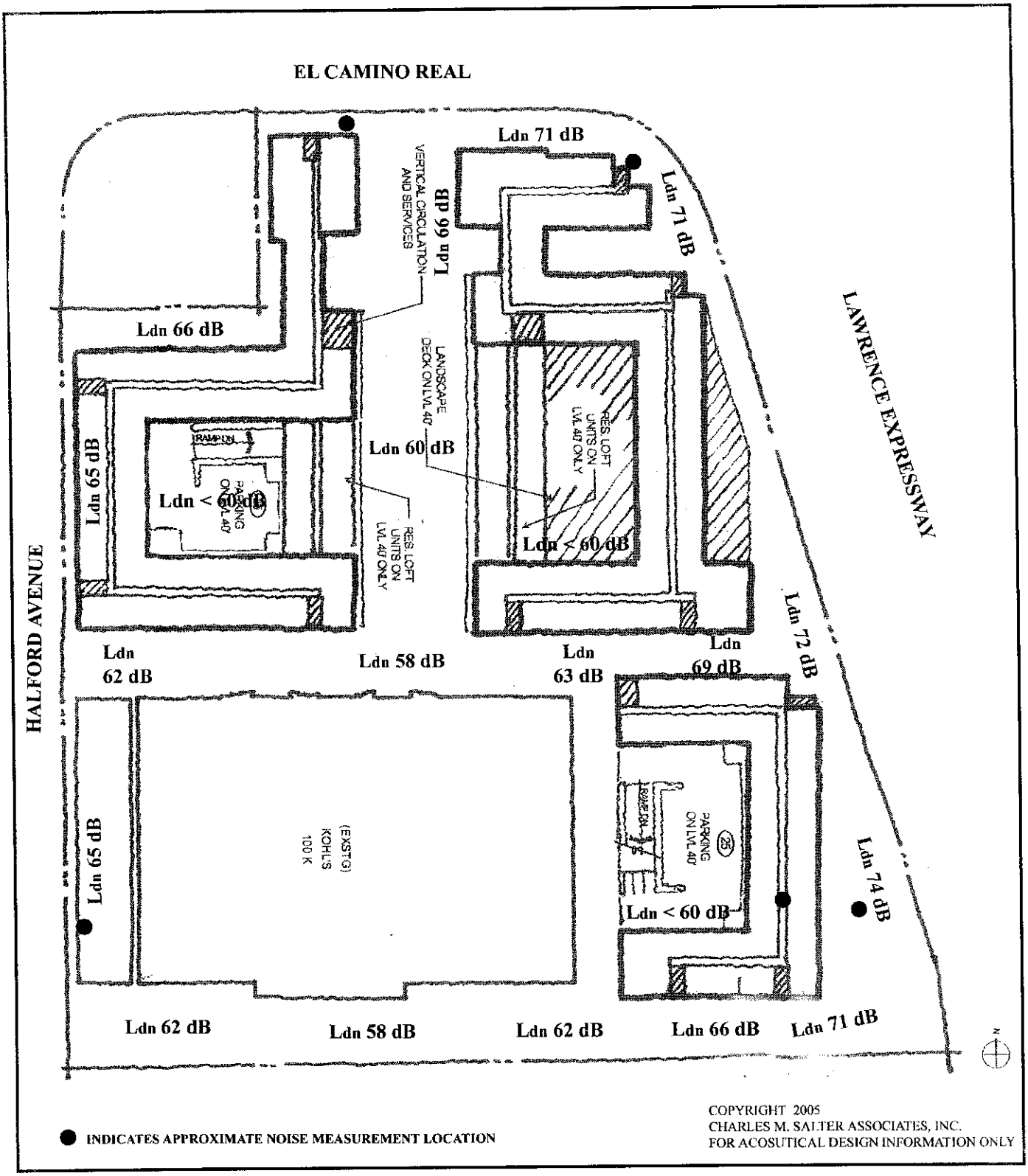
Since windows must be closed to achieve the interior noise criterion, an alternate means of providing outside air to habitable spaces is required for façades exposed to an exterior DNL of 60 dB, or greater.

Project-Generated Noise

Noise from operations associated with the proposed mixed use development have the potential to adversely impact adjacent residential areas. The project should incorporate proper mitigation to reduce noise from air-conditioning units and other mechanical equipment to the levels outlined in the City Code. Mitigation may include equipment selection and location and, if necessary, equipment barriers or enclosures. Details of mitigation measures would be determined during the design phase.

Parking Structure Noise

The proposed six-story building in the southeast corner of the site consists of three levels of parking below three residential condominium levels. Condominiums are planned on the fourth, fifth and sixth-floor levels around the north, south and east edges of the building (forming a U-shape above the rectangular base). A vehicle ramp is located along the western edge of the first three levels.



Future Noise Levels

Figure 21

The existing residences adjacent to this portion of the site are currently exposed to vehicle noise from traffic along Lawrence Expressway and intermittent noise from trucks and cars accessing the existing parking lot. The proposed parking/housing structure has two, partially offsetting effects on noise:

- Vehicle noise in the garage, including tire, engine and car alarm noise, may be audible at the nearest residences.

- The structure will provide some shielding from vehicle noise on Lawrence Expressway for the existing residences.

Temporary Construction Noise

During construction, the site preparation and construction phase would generate temporary sound levels ranging from approximately 70 to 90 dBA at 50 foot distances from heavy equipment and vehicles. These construction vehicles and equipment are generally diesel powered, and produce a characteristic noise that is primarily concentrated in the lower frequencies.

The powered equipment and vehicles act as point sources of sound, which diminish with distance over open terrain at the rate of 6 dBA for each doubling of the distance from the noise source. For example, the 70 to 90 dBA equipment peak noise range at 50 feet would reduce to 64 to 84 dBA at 100 feet, and to 58 to 78 dBA at 200 feet. Therefore, during the construction operations, sound level increases of 20 to 40 dBA due to these sources could occur near the project boundary.

Since construction is carried out in several reasonably discrete phases, each has its own mix of equipment and consequently its own noise characteristics. Generally, the short-term site preparation phase, which requires the use of heavy equipment such as bulldozers, scrapers, trenchers, trucks, etc., would be the noisiest. The ensuing building construction and equipment installation phases would be quieter and on completion of the project, the area's sound levels would revert essentially to the traffic noise levels.

Impact Summary

Exterior and interior noise exposures from vehicular traffic along El Camino Real and along Lawrence Expressway, project-generated noise, parking structure noise, and temporary noise from construction equipment would result in significant noise impacts.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Program Measures

Interior Noise

- Mechanical ventilation shall be provided in accordance with Uniform Building Code requirements when windows are to be closed for noise control.

Project Measures

Exterior Noise

- Exterior balconies along El Camino Real or along Lawrence Expressway shall be inset into the building shell and/or incorporate rail-height shielding from roadway traffic.

- A solid noise barrier shall block the line-of-sight between vehicles on Lawrence Expressway and people in the fifth-floor outdoor open space on the building in the northeast corner of the site.

Interior Noise

- The buildings shall be designed and constructed so that all office / commercial spaces and all residential living spaces shall achieve interior noise exposures of 45 dB DNL or less by the provision of measures such as closed windows and glass doors, and of STC rated windows and doors.

Project-Generated Noise

- The buildings shall be designed and constructed so that noise from air-conditioning units and other mechanical equipment shall not exceed 55 dB and 50 dB, for daytime and nighttime activities, respectively, at the residential property lines to the south and west, by the use of measures such as equipment selection and location and/or equipment barriers or enclosures.

Parking Structure Noise

- The south edge and southwestern corner of the parking structure in the southeast corner of the site shall be fully enclosed, rather than open, to eliminate a direct line-of-sight from cars in the structure to existing residences.

- The driving surfaces in the garage shall be textured to reduce tire squeal.

- Where expansion joints occur, tightly fitting covers with concrete fill shall be selected to minimize noise as vehicles drive over them.

Temporary Construction Noise

- Construction equipment shall be regulated to limit noise levels to 90 dBA at a distance of 50 feet from the source.

- Noisy construction operations shall be scheduled for the daytime hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturdays, so as to avoid the more sensitive evening, nighttime and weekend hours.

CONCLUSION

Building design and the provision of closed windows and specified STC rated windows, the design and construction of air-conditioning units and other mechanical equipment to meet specified noise levels at the residential property lines to the south and west, the design of the parking structure in the southeast corner of the site to reduce noise at the nearest residences, and the regulation of construction equipment noise levels and hours of operation would reduce the impacts of vehicular traffic noise, project-generated noise, parking structure noise, and the temporary noise impacts of project construction to a **less-than-significant impact with mitigation**.

L. PUBLIC SERVICES

SETTING

Schools

The project site is in the Santa Clara Unified School District (K-12). Students from the project are expected to attend:

School	Address	Capacity
Laurelwood Elementary	955 Teal Drive, Santa Clara	close to
Peterson Middle	1380 Rosalia Avenue, Sunnyvale	close to
Wilcox High	3250 Monroe Street, Santa Clara	impacted

All of the schools are close to or at capacity. Busing is not provided.

Parks and Recreation

There are two developed City of Santa Clara parks within the project vicinity. Earl R. Carmichael Park (formerly Homestead Park) is a 10.5-acre park located across Lawrence Expressway at 3445 Benton Street, approximately 0.8 mile from the site. It is accessible by sidewalk. Carmichael Park contains basketball courts, a Little League field, a picnic area, 2 lighted tennis courts, a children's play area, open space, and a gymnastics center. Machado Park is a 3.5-acre park located at 3360 Cabrillo Avenue, across Lawrence Expressway and north of El Camino Real, approximately 0.9 mile from the site. It is also accessible by sidewalk. Machado Park contains a small children's play area, a turf play area, a basketball court, Little League stadium, picnic/barbecue facilities, a neighborhood recreation building and restrooms.

There is also one developed City of Sunnyvale park within the project vicinity. Raynor Park is located at 1565 Quail Avenue, approximately 0.8 mile southwesterly of the project site. It is a 7.0-acre park that contains a children's play area, horseshoe pits, a multi-use field, a skating rink, picnic sites and restrooms. In addition, there are playing fields and a municipal pool at Peterson Middle School, approximately 0.6 mile westerly of the project site.

Park locations are shown on the preceding USGS Map, Figure 3.

Fire Protection

The project site is in the service area of the Santa Clara Fire Department. The fire stations responding to emergency calls, i.e., fires and emergency medical situations, within the project site and their approximate response times are listed below.

Station No.		Address	Response Time
1st Engine:	7	3495 Benton Street	<3.0 minutes
2nd Engine:	5	1912 Bowers Avenue	<3.0 minutes
1st Truck:	7	3495 Benton Street	<3.0 minutes
Paramedic Unit:	5	1912 Bowers Avenue	<3.0 minutes
Battalion Chief:	1	777 Benton Street	<3.0 minutes
3rd Engine:	3	2821 Homestead Road	<3.0 minutes

All of the response times are within the recommended limits.

Police Protection

The project site is within Beat No. 1 of the Santa Clara Police Department's service area. The major crimes reported in the project area in terms of frequency are petty theft and problems with transients (panhandling, public drunkenness, etc). The Police Department maintains approximately 160 sworn personnel plus support personnel, and provides a service standard of approximately 1.54 officers per 1,000 population. The response time to a call in the area would depend on the nature of the call and the location of the patrol car(s) at the time the call is received; however, the Department's policy is to respond to all emergency calls in under three minutes.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on public services if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection; Police protection; Schools; Parks; and Other Public Facilities.

IMPACT AND MITIGATION

Schools

Residential

The residential portion of the project would add additional students to the Santa Clara Unified School District, as follows:

School	Capacity	Generation Factor	No. of Students
Laurelwood Elementary	close to	na	na
Peterson Middle	close to	na	na
Wilcox High	impacted	na	na
		0.51/du (K-12)	250

Based on the district generation factor listed above, the project could generate a total of up to 250 students. This is not considered to have a significant physical effect on the environment.

The State School Facilities Act provides for school district impaction fees for elementary and high schools and related facilities as a condition of approval of residential projects. The one-time fee, which is based on the square footage of new habitable residential construction, would be paid prior to the issuance of a building permit.

Office / Commercial

The office / commercial portion of the project would have no direct impact on schools, but could have a secondary impact should any of the employees move into the district or petition

that their child(ren) be accepted into district schools under Allen Bill provisions. The Allen Bill only applies to elementary-aged school children.

The State School Facilities Act provides for school district impaction fees for elementary and high schools and related facilities as a condition of approval of non-residential projects, when a link is found between the new non-residential development and the need for schools. The one-time fee, which is based on the square footage of newly constructed non-residential (commercial and industrial) use, would be paid prior to the issuance of a building permit.

Parks and Recreation

The City of Santa Clara provides parks and recreation facilities within the city.

Residential

Project residents would increase the demand for public park facilities; however, there are currently two developed City of Santa Clara parks within the project vicinity. Private open space and recreation facilities planned with the project include approximately 28,800 square feet on the podium of Building V; amenities will include a children's playground, small picnic area with grass and small shade trees, and fitness rooms..

Office / Commercial

The office / commercial portion of the project is not expected to have an impact on City park and recreation facilities, although employees could utilize them during lunch periods or after work. The City parks in the area are adequate to serve the project employees.

Fire Protection

The project site is in the service area of the Santa Clara Fire Department. All of the response times are within the recommended limits. No additional fire personnel or equipment would be necessary due to the implementation of the project.

Police Protection

The Santa Clara Police Department provides police protection for the city. No additional police personnel or equipment are expected to be necessary to serve the project, however, a police substation will be incorporated into the office portion of the project.

Impact Summary

The project would not have a significant physical impact on schools, parks and recreation, fire protection and/or police protection.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The project's impact on public services would be a **less-than-significant impact**.

M. TRANSPORTATION / TRAFFIC

Hexagon Transportation Consultants, Inc. conducted a transportation impact analysis that is included in the Technical Appendix.

SETTING

Street System

Regional Roadways

Regional access to the site is provided by US 101, Interstate 280 (I-280) and State Route 237 (SR 237).

US 101 is an eight-lane freeway in the vicinity of the project site. In the Bay Area, US 101 extends from central San Francisco to Gilroy. Access to the site is provided via its interchange with Lawrence Expressway.

I-280 is an eight-lane freeway in the vicinity of the project site. It is located south of the site and extends northwest to San Francisco and east to King Road in San Jose, where it makes a transition to I-680 to Oakland. Access to the site is provided via its interchange with Lawrence Expressway.

SR 237 is a six-lane freeway located north of the project site. it extends in an east/west direction, providing access to I-880 and US 101. Two of the six lanes (one in each direction) are designated as High Occupancy Vehicle (HOV) lanes. Access to the site is provided via its interchange with Lawrence Expressway.

Local Roadways

Local access to the site is provided by Halford Avenue, Lillick Drive, El Camino Real and Lawrence Expressway.

Halford Avenue is a two-lane north/south roadway that forms the western boundary of the project site. It runs between Poinciana Drive north of the site, and Peacock Lane south of the site. Direct access to the site is provided via driveways along Halford Avenue.

Lillick Drive is a two-lane east/west roadway south of the project site that provides access to and from southbound Lawrence Expressway.

El Camino Real (SR 82) is a northwest/southeast thoroughfare that extends from San Francisco to downtown San Jose as The Alameda and as Santa Clara Street. It generally operates as a six-lane divided facility in the project area. El Camino Real provides direct access to the site via a right-in, right-out driveway.

Lawrence Expressway is an eight-lane north/south expressway with one lane in each direction provided for HOVs. Lawrence Expressway provides access to US 101, I-280 and SR 237.

Level of Service

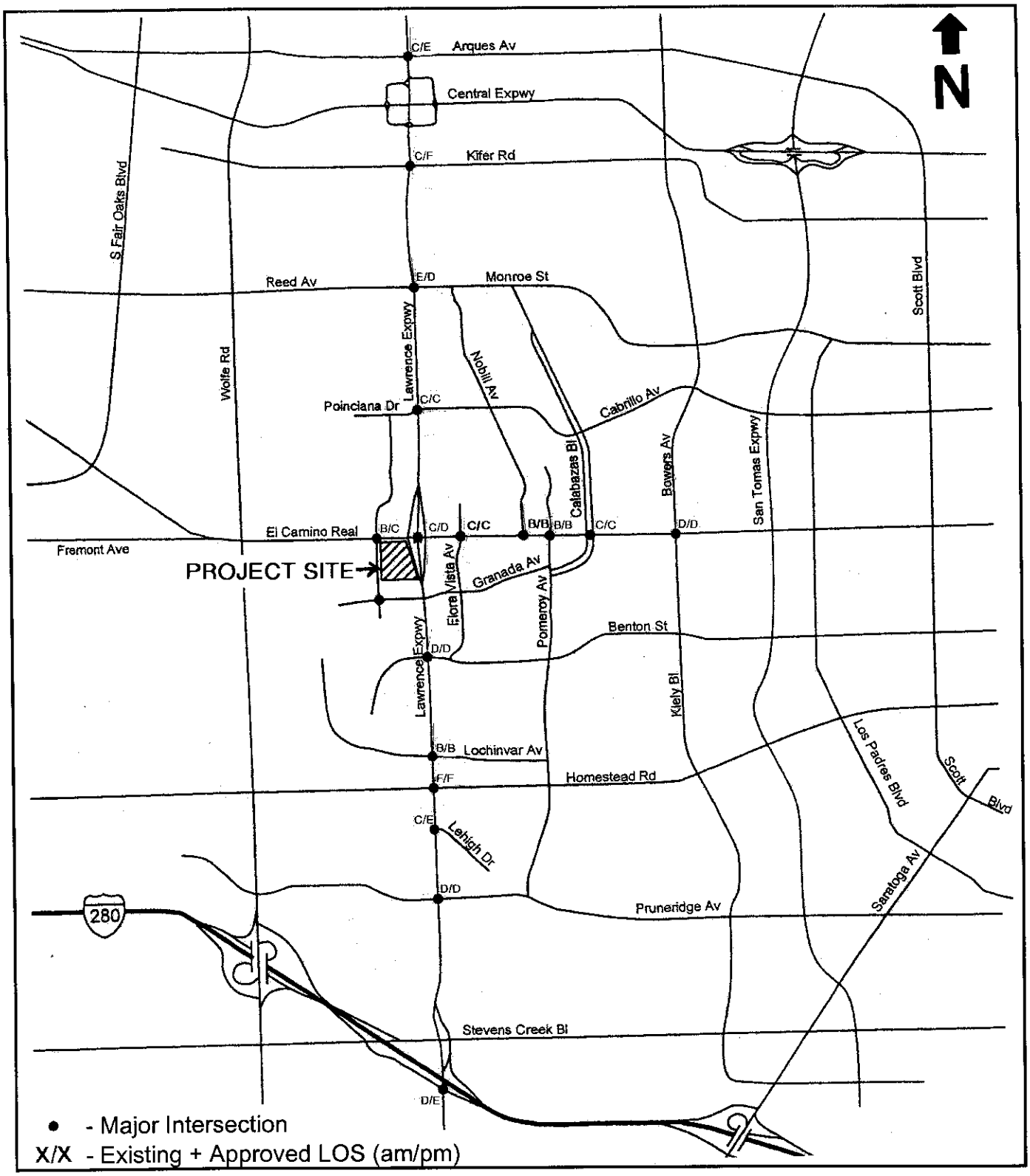
In an urban street network, the critical determinants for overall traffic conditions are the operational characteristics of the major intersections. To establish a standard frame of reference when describing traffic flow, the concept of level of service is used. As described by the *Highway Capacity Manual*, the level of service of a facility is a theoretical traffic volume determined by its physical and operational characteristics and by stipulated conditions of traffic flow. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time, which is measured as the average stopped delay per vehicle. Flow conditions vary from unrestricted at Level A to forced flow at Level F, as described below.

Level of Service	Type of Flow	Traffic Conditions	Delay (seconds)
A	Free	No approach phase fully utilized. No vehicle waits longer than one red indication.	≤10.0
B	Stable	An occasional approach phase is fully utilized.	10.1-20.0
C	Stable	Occasional drivers may have to wait through more than one red signal. Backups may develop behind turning vehicles.	20.1-35.0
D	Approaching Unstable	Delays to vehicles may be substantial during short peaks, but periodic clearance of queues prevents excessive backups from developing.	35.1-55.0
E	Unstable	Capacity, with sustained delays and backups.	55.1-80.0
F	Forced	Excessive delay.	>80.0

The major street system in the project site vicinity and the levels of service are shown on the following Major Street System map.

Existing Conditions

Local conditions and project impacts are evaluated by TRAFFIX, which is a computer program based on the *Highway Capacity Manual* method for signalized intersections. TRAFFIX evaluates signalized intersection operations on the basis of average delay time for all vehicles at the intersection. Eleven major City intersections that would be affected by the project are reviewed. The City of Santa Clara level of service standard for signalized intersections is level of service "D" or better.



Major Street System

Figure 22

The major intersections were evaluated under existing and future traffic conditions to determine their level of service. Future conditions were determined by adding traffic projections from approved projects that have not been occupied, as provided by the City of Santa Clara, to the existing condition.

The following table lists the average delays and equivalent levels of service for the existing and existing plus approved morning and evening peak hours.

Table 6. Existing Levels of Service

Intersection	Peak Hour	Existing Delay* (sec.)	Existing Service Level	Existing+Approved Delay* (sec.)	Existing+Approved Service Level
El Camino Real and	a.m.	19.4	B	19.9	B
Halford Avenue	p.m.	21.4	C	22.0	C
El Camino Real and	a.m.	29.8	C	30.8	C
Lawrence Expressway**	p.m.	31.8	C	38.8	D
El Camino Real and	a.m.	23.7	C	21.2	C
Flora Vista Avenue	p.m.	22.3	C	20.4	C
El Camino Real and	a.m.	15.4	B	13.2	B
Nobili Avenue	p.m.	16.2	B	14.0	B
El Camino Real and	a.m.	19.4	B	18.2	B
Pomeroy Avenue	p.m.	15.6	B	13.6	B
El Camino Real and	a.m.	26.9	C	26.0	C
Calabazas Boulevard	p.m.	24.4	C	22.5	C
El Camino Real and	a.m.	39.1	D	39.3	D
Bowers Avenue**	p.m.	44.9	D	48.8	D
Lawrence Expressway and	a.m.	28.7	C	33.3	C
Scott Boulevard**	p.m.	67.6	E	70.7	E
Lawrence Expressway and	a.m.	25.7	C	26.1	C
Kifer Road	**p.m.**	**85.8**	**F**	**97.5**	**F**
Lawrence Expressway and	a.m.	64.9	E	75.7	E
Monroe Street**	p.m.	38.5	D	42.2	D
Lawrence Expressway and	a.m.	31.9	C	32.3	C
Cabrillo Avenue	p.m.	22.2	C	21.7	C
Lawrence Expressway and	a.m.	47.2	D	50.5	D
Benton Street	p.m.	36.9	D	36.1	D
Lawrence Expressway and	a.m.	14.6	B	13.9	B
Lochinvar Avenue	p.m.	17.1	B	15.9	B
Lawrence Expressway and	**a.m.**	**55.3**	**E**	**86.9**	**F**
Homestead Road**	**p.m.**	**54.1**	**D**	**137.4**	**F**
Lawrence Expressway and	a.m.	10.4	B	25.3	C
Lehigh Drive	**p.m.**	**9.5**	**A**	**73.6**	**E**
Lawrence Expressway and	a.m.	32.6	C	42.9	D
Pruneridge Avenue	p.m.	33.8	C	39.3	D
Lawrence Expressway and	a.m.	38.1	D	47.9	D
I-280**	p.m.	39.8	D	56.7	E

*Delay – Average delay for the whole intersection in seconds. **CMP intersection.

Under the existing plus approved condition, two of the City intersections, as shown in the above table in **bold**, are operating below Level D.

Public Transit

Public transit is provided in the project area by the Santa Clara Valley Transportation Authority. Routes 22 (Eastridge to Palo Alto/Menlo Park), 300 (Limited Route - San Jose to Palo Alto) and 522 (Rapid Route - Eastridge Transit Center to Palo Alto Transit Center) travel along El Camino Real; and Route 328 (Limited Route - Almaden/Camden to Lockheed) travels along Lawrence Expressway, with stops near El Camino Real. Rapid Route 522 stops at Lawrence Expressway. The project site is not located within the vicinity of a light rail station. In addition, the Lawrence Caltrain Station at 137 San Zeno Way, Sunnyvale, is located approximately 1.25 miles to the north.

Congestion Management Program Analysis

A Congestion Management Program (CMP) analysis was also performed using the guidelines outlined in the Santa Clara County CMP. Level of service calculations were performed for six CMP intersections. The CMP traffic level of service standard is Level E. Under the existing plus approved condition, one of the CMP intersections, as shown in the preceding table in **bold**, is operating below Level E.

Freeway Segment Analysis

A freeway level of service analysis was not performed since project trips on freeway segments would not be greater than one percent of the capacity of the segments.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on transportation / traffic if it would:

- Cause a City intersection operating at Level D or better to operate at Level E or F; or cause an increase in critical delay of 4.0 or more seconds and an increase in the critical V/C ratio of 0.010 or more at a City intersection that is projected to operate at Level E or F with existing plus approved projects.
- Cause a CMP intersection operating at Level E or better to operate at Level F; or cause an increase in critical delay of 4.0 or more seconds and an increase in the critical V/C ratio of 0.010 or more at a CMP intersection that is projected to operate at Level F with existing plus approved projects.
- Cause an increase of one percent or more of the capacity at a freeway segment that is projected to operate at Level F with existing plus approved projects; or cause a freeway segment to deteriorate from Level E or better to Level F.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature or incompatible uses.
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans or programs supporting alternative transportation.

IMPACT AND MITIGATION

Trip Generation

The project traffic generation is estimated in the following table.

Table 7. Project Traffic Generation

Land Use	Size	Trip Rate	Daily Trips	A.M. Peak Hour Trips In	A.M. Peak Hour Trips Out	A.M. Peak Hour Trips Total	P.M. Peak Hour Trips In	P.M. Peak Hour Trips Out	P.M. Peak Hour Trips Total
Proposed									
Office	12,300 sf	21.6 *	266	30	4	34	15	75	90
Condominiums	490 du	5.06	2,478	31	153	184	127	63	190
Retail **	171,000 sf	56.3 *	9,625	132	84	216	307	333	640
		Subtotal:	12,368	193	241	434	450	470	920
Existing									
Retail ***	141,711 sf	60.1 *	- 8,518	- 118	- 75	- 193	- 284	- 307	- 591
Added Trips			3,850	75	166	241	166	163	329

* Per 1,000 square feet.
** Includes 105,000 sf existing retail (Kohl's) to remain.
*** Includes Kohl's, market, and restaurant.

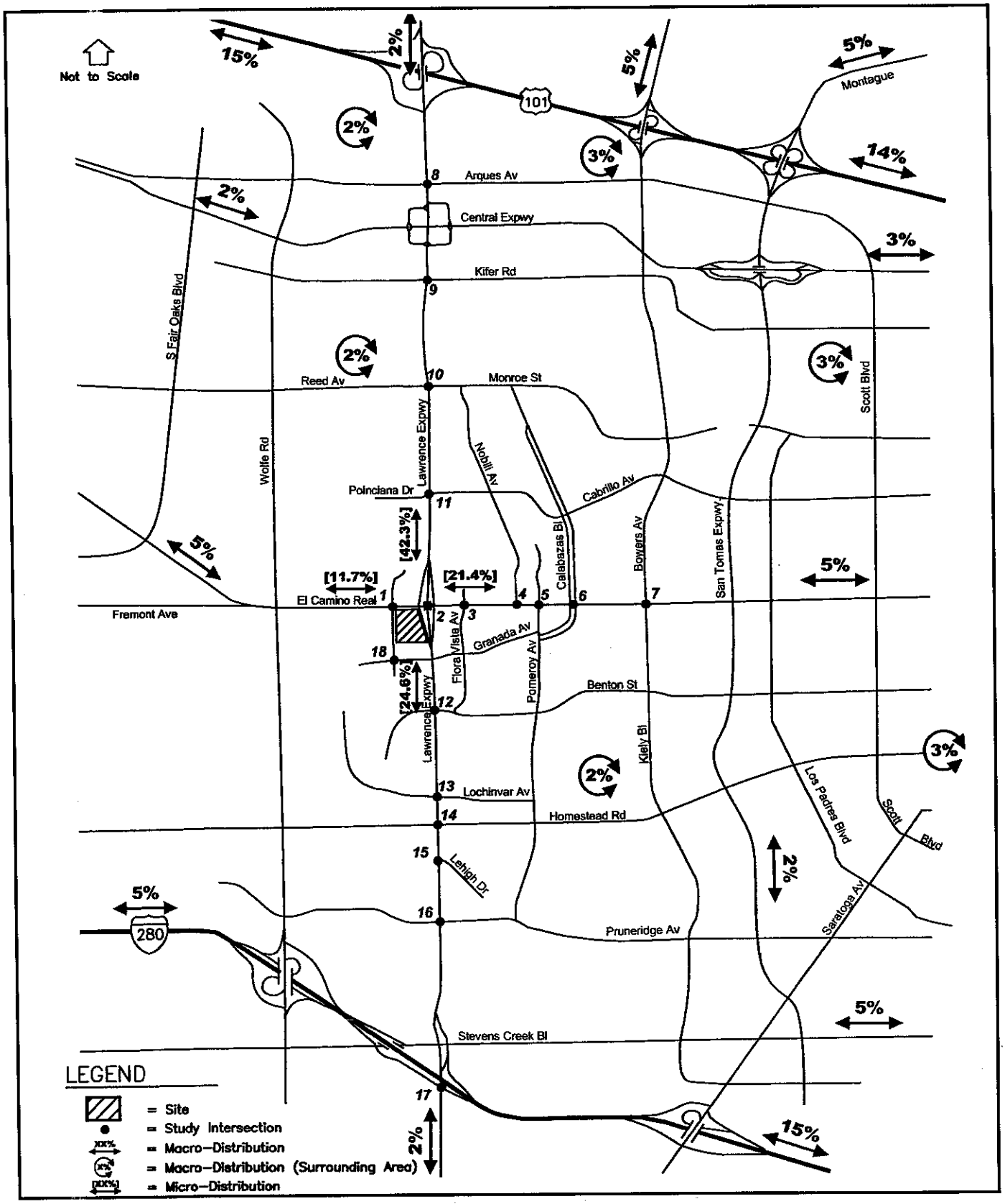
Trip Distribution and Assignment

The project generated trips were distributed and assigned to the local street system in accordance with existing travel patterns on the surrounding roadway system and the locations of complementary land uses, as shown on the following Trip Distribution exhibits and detailed in the transportation impact analysis in the Technical Appendix.

Project Impacts

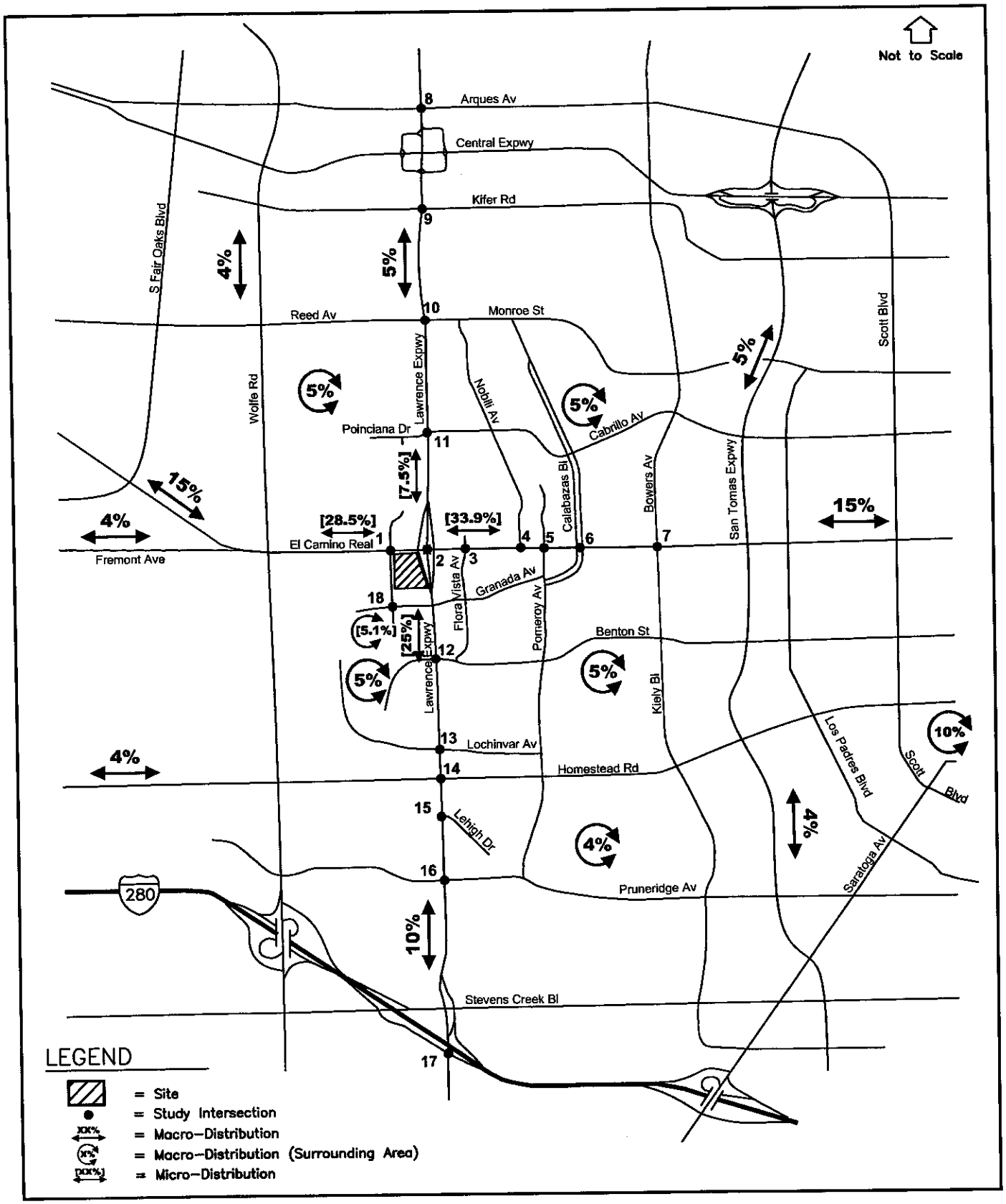
The major intersections were analyzed for changes in average delay and level of service with the addition of project traffic. The average delays and corresponding levels of service are listed in the following table, and the levels of service are shown on the following Traffic Impacts map.

The existing plus approved levels of service at the eleven City intersections would remain unchanged with the addition of project traffic except for the intersection of El Camino Real and Halford Avenue, which would go from Level B to Level C; and the project would not add four seconds or more to the critical delay and 0.010 or more to the critical V/C ratio at the two intersections that are projected to operate at Level E or F. Therefore, the project's traffic impacts would be less-than-significant, and no mitigation measures are required to meet the City's level of service standard.



Residential Trip Distribution

Figure 23a



Non-Residential Trip Distribution

Figure 23b

Table 8. Project Levels of Service

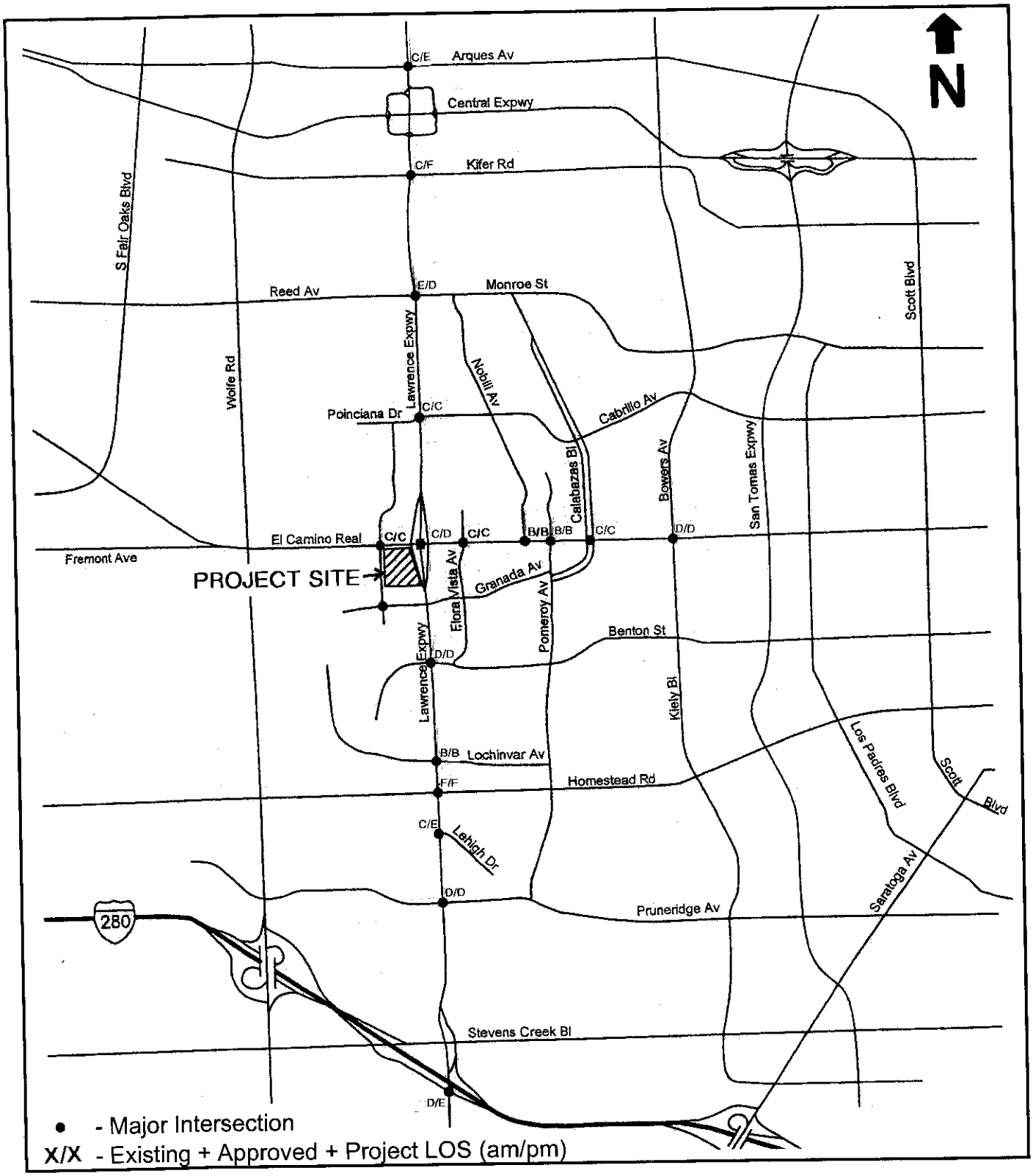
Intersection	Peak Hour	Exist. + Approved Delay* (sec.)	Exist. + Approved Service Level	Exist. + App. + Project Delay* (sec.)	Exist. + App. + Project Service Level	Δ Crit. Delay* (sec.)	Δ Crit. V/C Ratio
El Camino Real and	a.m.	19.9	B	21.0	C	2.0	0.022
Halford Avenue	p.m.	22.0	C	24.8	C	8.0	0.070
El Camino Real and	a.m.	30.8	C	31.2	C	0.1	0.013
Lawrence Expwy.**	p.m.	38.8	D	40.3	D	0.0	0.021
El Camino Real and	a.m.	21.2	C	21.0	C	-0.2	0.004
Flora Vista Avenue	p.m.	20.4	C	20.1	C	-0.2	0.009
El Camino Real and	a.m.	13.2	B	13.0	B	-0.2	0.004
Nobili Avenue	p.m.	14.0	B	13.8	B	-0.1	0.009
El Camino Real and	a.m.	18.2	B	17.0	B	-3.3	-0.021
Pomeroy Avenue	p.m.	13.6	B	13.4	B	-0.2	0.009
El Camino Real and	a.m.	26.0	C	25.7	C	-0.2	0.004
Calabazas Boulevard	p.m.	22.5	C	22.2	C	-0.2	0.008
El Camino Real and	a.m.	39.3	D	39.4	D	0.3	0.009
Bowers Avenue**	p.m.	48.8	D	49.4	D	0.9	0.007
Lawrence Expwy. and	a.m.	33.3	C	33.2	C	-0.1	0.007
Scott Boulevard**	p.m.	70.7	E	70.9	E	0.4	0.007
Lawrence Expwy. and	a.m.	26.1	C	26.2	C	0.3	0.010
Kifer Road	p.m.	97.5	F	99.4	F	3.3	0.008
Lawrence Expwy. and	a.m.	75.7	E	78.5	E	4.4	0.010
Monroe Street**	p.m.	42.2	D	43.3	D	1.8	0.011
Lawrence Expwy. and	a.m.	32.3	C	32.7	C	0.6	0.011
Cabrillo Avenue	p.m.	21.7	C	21.8	C	0.2	0.009
Lawrence Expwy. and	a.m.	50.5	D	51.7	D	2.1	0.007
Benton Street	p.m.	36.1	D	36.3	D	0.1	0.005
Lawrence Expwy. and	a.m.	13.9	B	13.8	B	0.0	0.003
Lochinvar Avenue	p.m.	15.9	B	15.9	B	0.0	0.005
Lawrence Expwy. and	a.m.	86.9	F	87.2	F	0.9	0.005
Homestead Road**	p.m.	137.4	F	137.3	F	0.7	0.005
Lawrence Expwy. and	a.m.	25.3	C	25.3	C	0.0	0.002
Lehigh Drive	p.m.	73.6	E	74.4	E	1.3	0.004
Lawrence Expwy. and	a.m.	42.9	D	43.0	D	0.2	0.002
Pruneridge Avenue	p.m.	39.3	D	39.4	D	0.0	0.004
Lawrence Expwy. and	a.m.	47.9	D	49.9	D	2.5	0.009
I-280**	p.m.	56.7	E	57.7	E	1.5	0.004

* Delay = Average delay for the whole intersection in seconds.
V/C = Volume to Capacity

** CMP intersection.

Congestion Management Program Analysis

The six identified CMP intersections were analyzed for changes in weighted average delays, level of service, and critical movements with the addition of project traffic, as shown in the preceding table. Five of the six CMP intersections would have weighted average delays equivalent to a Level of Service E or better. One of the CMP intersections would have weighted average delays equivalent to Level F, but would have acceptable critical movements. The project would conform to the CMP level of service standard and policy.



Traffic Impacts

Figure 24

Operational Issues

The following discussions are on operational issues related to the street system in the project vicinity and access to the project site. While the discussions do indicate that certain improvements are recommended, they are not a result of the project causing substantial safety risks but would improve traffic flow and operations. Under the preceding Significance Criteria, there is not a significant impact; therefore, they would not be considered mitigation measures.

Signal Warrant Analysis

Peak hour signal warrant checks were performed at the unsignalized intersection of Halford Avenue and Lillick Drive. This assessment was made on the basis of the Caltrans Peak Hour Volume Signal Warrant, Warrant #11; this method makes no evaluation of intersection level of service, but simply provides an indication whether peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. The signal warrant analysis, which is included in the traffic report in the Technical Appendix, showed that the intersection would not warrant a traffic signal under project conditions.

Site Access

The existing driveways serving the site may need to be reconstructed, but the project is not proposing any additional access points. The site will continue to be served by one right-in/right-out-only driveway along El Camino Real and three full access driveways along Halford Avenue.

El Camino Real

One restricted right-in/right-out driveway will serve the project site from El Camino Real. It is recommended that the driveway be constructed to provide one 18-foot inbound lane and one 18-foot outbound lane. Also, to avoid vehicles entering the site from backing up onto El Camino Real due to conflicts occurring in the immediate area of the driveway, a minimum 100-foot throat with no parking should be provided. The El Camino Real driveway will provide direct access to surface parking, but also will provide access to all parking garages. It is projected that the majority of the retail project trips will utilize the El Camino Real entrance.

It is estimated that a majority of the overall p.m. inbound traffic to the site will arrive via Lawrence Expressway and westbound El Camino Real. As such, most of the project traffic will make either a left-turn or U-turn at the intersection of El Camino Real and Halford Avenue during the p.m. peak hour. Vehicle queues for the westbound left-turn movement were evaluated with the use of TRAFFIX to determine whether the provided storage capacity would be adequate to serve project condition volumes. The analysis indicated that the provided storage capacity for the westbound left turn at El Camino Real and Halford Avenue would be adequate to serve project traffic. There currently is no striping on Halford Avenue for the two left-turn lanes from El Camino Real. It is recommended that striping be provided on Halford Avenue to accept each of the left-turn lanes.

Halford Avenue

Three unrestricted driveways will serve the project site along Halford Avenue. It is likely that the driveways along Halford Avenue will serve the majority of the residential project traffic.

Signal warrant checks were conducted for each of the driveways along Halford Avenue. The results indicated that none of the driveways would meet signal warrants with the addition of project traffic. The warrants are not met because traffic volumes along Halford Avenue are relatively low.

Vehicle queues for the left-turn movement from northbound Halford Avenue to westbound El Camino Real were evaluated to determine whether the existing storage capacity would be adequate to serve project condition volumes. Queue estimates indicate a projected maximum queue of 175 feet during the p.m. peak hour. The existing north project site driveway along Halford Avenue is located 175 feet south of El Camino Real. Thus, it is possible that during the p.m. peak hour, the left-turn vehicle queues from El Camino Real may extend back and block the north project driveway occasionally. The blockage of the north driveway poses a problem for inbound vehicles to the site traveling southbound on Halford Avenue. When the northbound left-turn queue extends back to the north driveway, vehicles will be unable to access the driveway and it is not feasible to provide storage at this location. The driveway blockage compounded with the dual left-turn lanes from El Camino Real to southbound Halford Avenue may cause vehicles to spill back to El Camino Real and cause safety problems. To alleviate any operational problems, it is recommended that the north project driveway be restricted to right-turns in and out only. The two left-turn lanes from El Camino Real currently merge down to one lane at the approximate location of the north driveway. With the driveway restriction, the two southbound lanes along Halford Avenue could be extended 300 feet from El Camino Real and allow for more efficient flow into and out of the site.

A two-way left-turn pocket is currently striped along Halford Avenue. The construction of a median along Halford Avenue with no break at the north driveway would serve to restrict movements at the driveway to right-turns only. The median should be constructed at a minimum width of 12 feet in order to provide a left-turn pocket at the middle site driveway. As stated previously, traffic volumes on Halford Avenue are relatively low and do not require that a second through lane be provided. On-street parking would be possible since Halford Avenue has a total curb-to-curb width of 70 feet. With a 12- foot median, 29 feet will be provided on both sides of the roadway. Angled parking at 45 degrees would require a minimum width of 30 feet from curb to median along the project frontage. The one-foot deficiency should not pose a problem. Angled parking would allow for 20 on-street parking spaces between the north and middle driveway and an additional 24 parking spaces between the middle and south driveways. Parallel curb parking is an alternate option, should it be decided that on-street parking is desirable. Approximately 25 total parallel parking spaces could be provided along the project frontage. To avoid the blockage of northbound travel lanes on Halford Avenue and operations at the intersection with El Camino Real, no on-street parking should be located north of the northern project driveway.

Impact Summary

The addition of project traffic would not have a significant impact on transportation / traffic.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The project's impact on transportation / traffic would be a **less-than-significant impact.**

N. UTILITIES AND SERVICE SYSTEMS

SETTING

Sanitary Sewers

There is an existing 10-inch City of Santa Clara sanitary sewer line on the west side of the project site in Halford Avenue feeding into one of two existing 10-inch City sanitary sewers in El Camino Real. Both of the lines in El Camino Real are currently flowing at or near capacity and are not available to serve the project without improvements. In addition, a recent study by the City indicates that there is not capacity sufficient for the project available downstream in larger trunklines in Calabazas Boulevard or Bowers Avenue. The Calabazas Boulevard trunk limitation is due in part to a contractual reserve committed to the interconnected Cupertino Sanitary District system upstream of the project. The existing conveyance deficiencies have been identified within the context of the currently adopted General Plan potential development scenario that includes the proposed project.

Wastewater Treatment

Wastewater treatment for the City of Santa Clara is provided by the San Jose-Santa Clara Water Pollution Control Plant (WPCP). Capacity is expected to be available to serve the project based on the current capacity of 167 million gallons per day (MGD); however, the Water Pollution Control Plant is currently operating under a 120 MGD dry weather flow trigger. This requirement is based upon the State Water Resources Board and the Regional Water Quality Control Board (RWQCB) concerns over the effects of additional freshwater discharges on the saltwater marsh habitat, and pollutants loading to the South Bay from the WPCP. A Growth Management System regulates new development to assure that the capacity is not exceeded. There are programs and services in place to help minimize flows to the Plant and, while plans are in place to ensure Plant compliance with the 120 mgd trigger, those plans call for conservation and water recycling as strategies for ongoing compliance.

Water Supply

There is an existing 8-inch City of Santa Clara water line in Halford Avenue, an existing 8-inch City water line in El Camino Real, and an existing 8-inch City water line through the site. Extensions within the project would be required. Reclaimed water is not available to the site.

Storm Drainage Facilities

There is an existing 21-inch City of Santa Clara storm drainage line in Halford Avenue and an existing 24-inch City storm drainage line in El Camino Real. Extensions within the project would be required.

Solid Waste / Recycling

Residential

Residential solid waste disposal service for the project site is provided by the City of Santa Clara, using Mission Trail Waste Systems. They are currently using the Newby Island sanitary

landfill disposal site. The landfill area has an estimated service life of 30 years. An unlimited residential recycling program in the City is provided by Stevens Creek Disposal & Recycling, which currently results in an approximately 50 percent reduction in residential solid waste that typically required disposal in a landfill.

Office / Commercial

There are several solid waste disposal service companies available for office / commercial purposes in Santa Clara. They are using the Newby Island sanitary landfill disposal site and/or the Kirby Canyon disposal site. Newby Island has an estimated service life of 30 years. Kirby Canyon has an estimated service life of up to 50 years.

Natural Gas Service

Natural gas service for Santa Clara is provided by Pacific Gas and Electric Company (PG&E). There are existing services in the area.

Electric Service

Electric service for Santa Clara is provided by the City of Santa Clara / Silicon Valley Power. There are existing services in the area.

Telephone Service

Residential

Residential telephone service for the project site is provided by SBC. There is existing service in the area.

Office / Commercial

There are several telephone services available for office / commercial purposes. There is existing service in the area.

SIGNIFICANCE CRITERIA

The proposed project would have a significant impact on utilities and service systems if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Generate wastewater that would exceed the capacity of the existing sanitary sewer conveyance system.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing treatment facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Not have sufficient water available from existing entitlements and resources, or are new or expanded entitlements needed.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

- Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Not comply with federal, state and local statutes and regulations related to solid waste.

IMPACT AND MITIGATION

Sanitary Sewers

Project

Sanitary sewer service for the project site is provided by the City of Santa Clara. The project is estimated to generate an average of approximately 0.10 million gallons per day (mgd) based on unit flow factors for building usages from the San Jose Water Pollution Control Plant. The 10-inch sanitary sewer line in Halford Avenue is available to serve the project; however, the two 10-inch sanitary sewer lines in El Camino Real downstream of the project are currently at or near capacity and are not available to serve the project. In addition, there is no capacity available downstream for the project in larger trunklines in Calabazas Boulevard or Bowers Avenue. The proposed increase of housing units and commercial area on the project site will require that additional capacity not currently available in the system be provided to serve the proposed project.

El Camino Sewer Evaluation Study

An El Camino Sewer Evaluation Study was recently completed. In addition to this Santa Clara Square project, there are two other proposed projects in the service area; one is a 278-unit project on Granada Avenue and the other is a 60-unit project on Lawrence Expressway. The Study, funded by agreement among these identified developments, analyzed these projects that are served by the two existing 10-inch lines in El Camino Real and monitored the flows for several weeks. Several segments of the El Camino Real lines were determined to be near or over capacity under existing land use conditions and when pending projects are added. The study also summarizes additional monitoring data for the trunk sewers provided by the City of Santa Clara.

The Study looked at solutions to the capacity problem, and developed two alternatives:

- Alternative 1 – Increased capacity on El Camino Real from Flora Vista Avenue to Calabazas Creek and diversion to the Calabazas trunk sewer
- Alternative 2 – Increased capacity on El Camino Real from Flora Vista Avenue to Bowers Avenue and on the Bowers Avenue trunk sewer

The City of Santa Clara has an agreement to provide the Cupertino Sanitary District with 13.8 mgd of peak capacity. The study indicates that there is currently no additional capacity in the Bowers Avenue line and less than 4 mgd in the Calabazas Boulevard line, so additional capacity must be added to the system to meet the agreement requirement. The City has indicated that it does not wish to reduce any reserve capacity to accommodate pending developments within Santa Clara; therefore, Alternative 1 is not feasible.

Alternative 2 includes the construction of 1,800 feet of replacement 12-inch line from Flora Vista Avenue to Pomeroy Avenue and 2,650 feet of replacement 15-inch line on the south side of El Camino Real from Pomeroy Avenue to Bowers Avenue with a siphon under Calabazas Creek. The following improvements are also required on Bowers Avenue:

Section 1: 723 feet of 12-inch parallel line from Chromite Drive to Union Pacific Railroad (UPRR)

Section 2: 300 feet of replacement 30-inch line crossing UPRR

Section 3: 1,180 feet of parallel 12-inch line from UPRR to Walsh Avenue

These improvements would alleviate the restriction in the two 10-inch lines in El Camino Real and provide capacity for the pending projects. They would be funded on a development fair share payment by the project and each of the other two pending developments in the west side area. These improvements are intended to serve these identified projects, but additional capacity would be necessary to provide additional design capacity for other projects in the future.

City-Wide Sewer Study

The City of Santa Clara has engaged a consultant to conduct a city-wide study of the sanitary sewer trunk system. The study will define long-term sewer needs and costs based on the currently adopted General Plan development scenario. Results of the city-wide study will be available in early 2007.

Westside Sewer Study

A priority study of the westerly section of the city that includes the project site and the trunk lines in Calabazas Boulevard and Bowers Avenue was also initiated because of pending projects' immediate needs and has been essentially completed. The study includes build-out of the adopted General Plan with approximately 3,000 to 3,500 additional residential units beyond the three pending projects. The results are expected to be similar to the El Camino Real Sewer Evaluation Study but will likely require an increase in the sizes of the trunk improvements to provide capacity for the additional units as well as additional capacity improvements required to meet the agreement requirements with the Cupertino Sanitary District.

Project Development

The project is not planned to begin until Spring, 2007. Phase I of the project is the demolition of the existing 30,000 square foot retail buildings on the east side of Kohl's and the construction of a new 25,067-square-foot retail and office building along the west side of Kohl's on Halford Avenue. This change would have a very slight 0.0004 mgd increase in the sanitary sewer use compared to the current condition. Phase I may, therefore, be able to proceed without a significant impact on the lines in El Camino Real or the trunklines in Calabazas Boulevard or Bowers Avenue.

Wastewater Treatment

Wastewater treatment for the City of Santa Clara is provided by the San Jose-Santa Clara Water Pollution Control Plant. There is sufficient Water Pollution Control Plant treatment capacity available to serve the site and the adopted General Plan.

Residential

The residential portion of the project is estimated to generate an average of approximately 88,200 gallons per day (0.09 MGD) of effluent, based on the Growth Management System's land use/effluent coefficient of 180 gallons per day per single family attached residential unit. High efficiency appliances (e.g., clothes washers and dishwashers) would be provided with the project.

Office / Commercial

The office portion of the project is estimated to generate an average of approximately 23,900 gallons per day (0.01 MGD) of effluent, based on the Growth Management System's land use/effluent coefficient of 0.140 gallons per day per square foot of office space. The commercial portion of the project is estimated to generate an average of approximately 13,000 gallons per day (0.01 MGD) of effluent, based on the Growth Management System's land use/effluent coefficient of 0.076 gallons per day per square foot of retail space.

Water Supply

Water for the project site is provided by the City of Santa Clara. The 8-inch water lines in Halford Avenue, El Camino Real, and through the project site are available and adequate to serve the project. Extensions within the project would be provided.

Residential

The residential portion of the project is estimated to require approximately 123,000 gallons of water per day, based on 100 gallons per person per day. The project incorporates built-in water savings devices such as shower heads with flow control devices and low flush toilets to reduce water usage.

Office / Commercial

The office portion of the project is estimated to require approximately 2,500 gallons of water per day based on 200 gallons per 1,000 square foot per day. The commercial portion of the project is estimated to require approximately 17,100 gallons of water per day, based on 100 gallons per 1,000 square feet of retail space per day. The project incorporates built-in water savings devices such as low flush toilets to reduce water usage.

Storm Drainage Facilities

As the project site is currently developed with buildings and hardscape, there would be a slight decrease in impervious surfaces (11.48 acres versus 11.40 acres) associated with project development that would cause a slight decrease in stormwater runoff. See Pre and Post Construction Drainage Calculations in the Technical Appendix. Storm drainage service for the

project site is provided by the City of Santa Clara. The 21-inch storm drainage line in Halford Avenue and the 24-inch storm drainage line in El Camino Real are available to serve the reduced runoff from the project. Extensions within the project would be provided. An onsite collection system including curbs, gutters and an underground system would be included in the project.

Solid Waste / Recycling

Residential

Residential solid waste disposal service for the project site is provided by the City of Santa Clara. The residential portion of the project is estimated to generate up to approximately 671 tons of solid waste per year, based on 3.0 pounds per person per day; however, with recycling, the amount disposed of in a landfill could be reduced to approximately 336 tons per year.

Office / Commercial

There are several solid waste disposal service companies available for office / commercial purposes in Santa Clara. The office portion of the project is estimated to generate up to approximately 6 tons of solid waste per year, based on 20 pounds per 1,000 square feet per week. The commercial portion of the project is estimated to generate up to approximately 89 tons of solid waste per year, based on 20 pounds per 1,000 square feet per week. These amounts could be reduced with recycling.

Natural Gas Service

There is existing PG&E gas service in the area that would be extended as required to serve the project. There is sufficient capacity in this utility system to provide adequate project service.

Electric Service

There is existing City of Santa Clara / Silicon Valley Power electric service in the area that would be extended as required to serve the project. There is sufficient capacity in this utility system to provide adequate project service.

Telephone Service

There are existing telephone facilities in the area that would be extended as required to serve the project. There is sufficient capacity in the utility systems to provide adequate project service.

Impact Summary

The project would have a significant impact on the City sanitary sewer conveyance system.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Sanitary Sewers

- The project shall pay a fair share for the construction of new facilities to serve the project. These improvements may include, but are not limited to, replacement/installation of a 12/15-inch sanitary sewer line in El Camino Real from Flora Vista Avenue to Bowers Avenue, a siphon under Calabazas Creek, and improvements to the existing sewer line in Bowers

Avenue from Chromite Drive to Walsh Avenue to the satisfaction of the Director of Public Works.

- The new sanitary sewer line and siphon in El Camino Real and the improvements to the Bowers Avenue trunkline shall be required to be constructed concurrently with the project and must be operational, to the satisfaction of the Director of Public Works, prior to the issuance of occupancy permits for any phases of the project that may exceed available capacity.

CONCLUSION

A fair share payment for the construction of new facilities to serve the project, including, but not limited to, replacement/installation of a 12/15-inch sanitary sewer line in El Camino Real from Flora Vista Avenue to Bowers Avenue, a siphon under Calabazas Creek, and improvements to the existing sewer line in Bowers Avenue from Chromite Drive to Walsh Avenue; and no issuance of occupancy permits for any phases of the project until the new sanitary sewer line and siphon in El Camino Real and the improvements to the Bowers Avenue trunkline are operational to the satisfaction of the Director of Public Works would reduce the project's impact on the City sanitary sewer conveyance system to a **less-than-significant impact with mitigation**.